April 6, 1948. J. D. CONEY 2,439,078

ADJUSTABLE CONNECTOR FOR SLIDING MEMBERS AND THE LIKE

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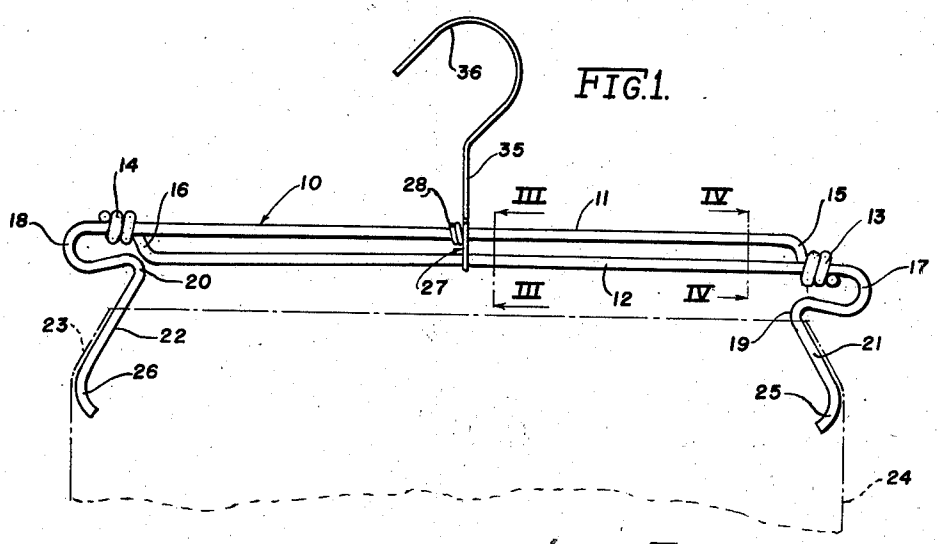


FIG. 1.

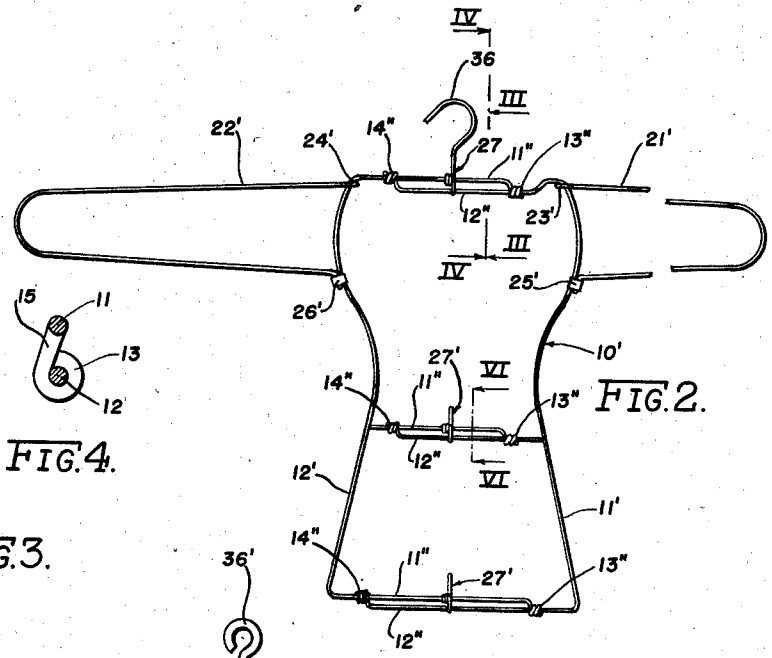


FIG. 2.

FIG. 4.

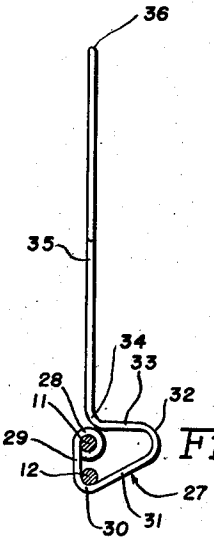


FIG. 3.

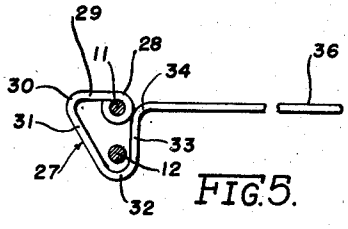


FIG. 5.

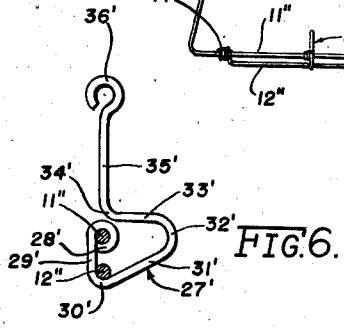


FIG. 6.

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ADJUSTABLE CONNECTOR FOR SLIDING MEMBERS AND THE LIKE

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8 Claims. (Cl. 223—69)

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This invention relates to garment frames and more particularly improved adjustable supporting, blocking and drying devices for knit and other garments and accessories such as sweaters, skirts, trousers, gloves, stockings, and the like, although the teachings thereof may be employed with equal advantage for other purposes.

It contemplates more especially the provision of inexpensive garment frames having improved simplified means for rendering such adjustable and maintaining the elements thereof in adjusted relation to the desired size and shape of the garments to be supported, blocked or dried thereon.

These garments are normally of varied style and size to conform with the dimension and shape characteristics of different individuals. To this end, the frame is adjustable to different shapes and sizes to conform with the initial shape and size of the garment. The adjustable characteristics conform with specifically shaped and sized garments in order to support, block and dry such to assume their initial size and shape.

Numerous types of adjustable garment frames have heretofore been proposed, but these have proven comparatively expensive and are not available for general distribution through low priced chain stores such as the dollar stores, cleaning establishments, laundries, and also other service institutions where the garment support or blocker should comprise a component element of the garment after being cleaned or laundered and prior to the actual use thereof. This does not necessarily mean that garment frames embodying the features of the present invention need be distributed by such institutions with the garment, but the cost thereof will be minimized to the extent of enabling the general adaptation thereof by low priced chain stores and service institutions such as cleaning establishments and laundries to provide such at a comparatively small expense to warrant their general adoption and insure the proper shape and storage of the garment until actually worn.

The present invention embodies adjustable and self-expanding features which do not involve such production operations that would impair the non-corroding finish with which the initial wire may be treated. In consequence thereof, garment hangers embodying the features of the present invention may be formed from standard galvanized or electro-plated wire, preferably though not essentially, number eleven gauge which is comparatively light, inexpensive, and suitable for garment blockers utilizable for service institutions and low priced variety store distribution.

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One object of the present invention is to provide an improved adjustable garment frame such as a skirt hanger or blocker of simple and inexpensive construction.

Another object is to provide a garment frame having the component elements thereof adjustable to meet different styled and sized garment characteristics.

Still another object is to provide garment frames possessing improved, simple and inexpensive size adjusting expedients to conform to different sizes, styles and shapes of garments and accessories.

A further object is to provide adjustable garment frames that can be shaped from galvanized or other non-corroding wire preferably without production impairment to the finish thereon.

A still further object is to provide adjustable garment frames having improved locking expedients entirely shaped from wire without requiring anything other than wire working operations.

Still a further object is to provide inexpensive adjustable and more effective garment frames embodying wire elements throughout and affording effective adjustment in size and shape.

Other objects and advantages will appear from the following description of an illustrative embodiment of the present invention.

In the drawings:

Figure 1 is a front view in elevation of a skirt support hanger embodying the features of the present invention, a portion of the skirt being shown in dotted outline to illustrate the manner of waist support thereof.

Figure 2 is a front view in elevation of an adjustable garment form or drier possessing locking expedients embodying features of the present invention.

Figure 3 is a side sectional view in elevation taken substantially along line III—III of Figures 1 and 2. with the adjustable locking expedient shown in its operative position to maintain the adjacent extensible members against relative displacement.

Figure 4 is a sectional view taken substantially along line IV—IV of Figures 1 and 2.

Figure 5 is a sectional view in elevation similar to Figure 3 with the locking expedient shown in inoperative position permitting relative displacement of adjacent slidable members.

Figure 6 is a sectional view in elevation of a modified locking expedient taken substantially along lines VI—VI of Figure 2.

The structure selected for illustration is not intended to serve as a limitation upon the scope or teachings of the invention, but is merely illus-

trative thereof. There may be considerable variations and adaptations of all or part of the teachings depending upon the dictates of commercial practice.

The present embodiment comprises any suitable garment frame 10 bent or otherwise shaped from wire to present adjacent overlapping and relatively sliding wires 11—12 through which the overall size or spread of the garment support or blocker 10 may be changed to conform with the desired size of the garment to be fitted thereon or thereover for support or blocking or drying operations. In the present embodiment, the relatively sliding overlapping wires 11—12 comprise part of a skirt hanger wherein the overlapping wires 11—12 are spaced from and guided relatively to each other by members of a plurality of convolutions 13—14 bent or otherwise wound as an integral terminal extension of the angularly offset free extremities 15—16 of the wires 11—12 which are preferably though not essentially aligned in a vertical plane.

The length of the angular offsets 15—16 of the overlapping wires 11—12 will determine the extent of their parallel spacing which may vary within the dictates of commercial practice. It should be observed that the convolutions 13—14 at the ends of the wire offsets 15—16 define eyelets enveloping the adjacent wires 12—11, respectively, which loosely slide therethrough for guiding the extensible parallel displacement thereof.

The convolutions 13—14 may be of any linear extent depending upon the number of convolutions employed to satisfactorily maintain the wires 11—12 in parallel spaced relation. The convolutions 13—14 are preferably though not essentially formed around the other wire guided therethrough by utilizing the latter as a mandrel to accomplish their inter-coupling for maintaining them in guided spaced parallelism for relative displacement. However, one or the other of the eyelet defining convolutions 13—14 may be formed prior to insertion of the other wire by bending the latter into the desired shape after inter-coupling of the parallel wires is effected.

In the present instance, the adjacent overlapping and relatively sliding wires 11—12 terminate in inwardly confronting open loops 17—18 which merge in reversely extending open loops 19—20 that terminate in divergent arms 21—22. The divergent arms 21—22 serve, in this instance, to engage the waist portion 23 of the skirt 24 after the wires 11—12 have been relatively displaced to tightly fit therein for effecting the proper support thereof. The divergent garment supporting arms 21—22 terminate, in this instance, in inwardly curved fingers 25—26 which preclude any possibility of snagging or otherwise injuring the garment 23—24.

After the adjacent relatively extensible wires 11—12 have been adjusted to assume the proper spread of the divergent arms 21—22 that are disposed inwardly of the garment waist 23, they are locked in adjusted position by means of suitable locking expedients. The locking expedient or expedients comprise, in this instnce, a frictional clip 27, which embodies a plurality of convolutions defining a guiding eyelet 28 that loosely envelops one of the wires 10—11, in this instance the upper wire 11, for free rotation and axial linear displacement therealong to preferably assume a central position between the relatively extensible wires 11—12. The convolution defining eyelet 28 merges into a straight short arm 29 that is somewhat shorter than the overall distance between the extreme edges of the wires 11—12 to effect the grasp thereof for slidably flexing toward each other. To this end, the straight arm 29 terminates in a curve or fillet 30 from which an inclined wire arm 31 extends to define an acute angle with the wire 29.

The inclined arm 31 is somewhat longer than the arm 29 and terminates in a curved fillet 32 that is aligned with the convolution defining eyelet 28 to form a triangular wire member relative thereto between the arms 29—31. The fillet 32 terminates in an arm 33 which extends toward and proximate to the eyelet 28 to terminate in a fillet 34 oppositely curved to the fillet 32. The fillet 34 terminates in a wire shank 35 serving as an actuator lever to pivot the clip 27 about the eyelet 28 which utilizes one of the parallel spaced wires 11—12, in this instance the upper wire 11, as a pivot. In the preferred embodiment, the lever shank 35 terminates in a hook 36 which serves to support the frame 10 on a rod with which a garment closet is usually fitted.

In the modified embodiment of the clip 27' (Figure 6), the lever actuator arm 35' terminates in an eyelet 36' which merely serves as a finger grasping medium to flip the clip 27' in one or the other of two positions, namely, operative friction grasping position of the adjacent parallel wire (Figures 3 and 6) or in an inoperative position permitting the other adjacent wire to be free therefrom (Figure 5) to permit relative sliding movement of the wires 11—12. It will be observed, therefore, that the clip 27 or 27' can be flipped for pivoting about the wire 11 to engage the adjacent wire 12 by sliding over the contacting surface of the arm 31 until the fillet 30 thereof engages therewith to flex the wires 11—12 toward each other and, thus, hold them in frictional connection in conjunction with the guide eyelets 13—14 against relatively sliding movement. With this arrangement, the relatively sliding adjacent wires 11—12 can be maintained for free relative adjustment or retained in adjusted fixed relation against relative extension by merely flipping the clips 27 or 27' in one of two of its positions.

The comparatively simple, inexpensive and effective clips 27 or 27' or both may be utilized in conjunction with suitable wire guiding loops such as the eyelets 13—14 to maintain two adjacent parallel and relatively extensible wires in any adjusted position irrespective of the use to which the adjacent wires such as the wires 11—12 are put. Accordingly, in the modified embodiment, the teachings of the present invention are embodied in conjunction with a garment frame such as a sweater blocker or drier 10' (Figure 2) shaped to assume any desired configuration and composed of wires 11'—12' having overlapping parallel adjacent extensions 11''—12'' at the overlapping extremities of the frame elements 11'—12' and intermediate the length thereof for bracing, should commercial practice so dictate.

In the garment frame 10', there are three sets of overlapping adjacent wires 11''—12''; however, the number may vary within a wide range depending upon the size, shape and purpose for which the garment frame 10 or 10' is designed or utilized. In this embodiment, however, the overlapping wires 11''—12'' are provided with guide eyelets 13''—14'' to guide the frame elements 11'—12' toward and away from each other to adjust the size of the garment frame 10' which

in this embodiment happens to be a sweater blocker or drier. A clip 27 fitted with a supporting hook 36 is operatively associated with the top overlapping wires 11''—12'' to accomplish the same purpose intended and set forth in connection with the garment frame or skirt hanger 10 described supra.

The intermediate and lowermost set of overlapping wires 11''—12'' are provided with clips 27' of the type illustrated and described in connection with Figure 6, and these collectively serve to permit the adjustment of the frame elements 11'—12' and to secure them in any desired extensible relation within the limits of the wires 11''—12'' disposed between the eyelets 13''—14''. This affords an effective, simple and inexpensive connector for adjustable frames or sliding members comprising part of hangers or garment forms depending upon the use for which they are intended.

The garment form 10' has suitable arm defining elements 21'—22' which are detachably associated with the upper regions of the garment form 10' to size and block the sleeves of a sweater of other garment. These are detachably associated with the garment form 10' by providing the upper arm extremities with open loops 23'—24', and the bottom arm extremities thereof with offsets fitted into loop straps 25'—26' preferably though not essentially fixed to the frame elements 11'—12'.

While I have illustrated and described a preferred embodiment of this invention, it must be understood that the invention is capable of considerable variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

I claim:

1. In an adjustable garment frame including relatively slidable adjacent parallel wire members, spaced means for slidably guiding said adjacent wire members, and other means rotatively interposed between said spaced guiding means to transversely flex said adjacent wire members for frictionally holding said adjacent wire members against relative slidable displacement.

2. In an adjustable garment frame including relatively slidable adjacent parallel wire members, spaced means for slidably guiding said adjacent wire members, and transverse camming means rotatively interposed between said spaced guiding means to frictionally hold said adjacent wire members against relative slidable displacement.

3. In an adjustable garment frame including relatively slidable adjacent wire members, means for slidably guiding said adjacent wire members, and other means pivotally mounted for movement transversely of said adjacent wire members for frictionally holding said adjacent wire members against relative slidable displacement.

4. In an adjustable garment frame including relatively slidable adjacent wire members, spaced means for slidably guiding said adjacent wire members, and other means pivotally mounted on one of said wire members for movement transversely of the other adjacent wire member for frictionally holding said adjacent wire members against relative slidable displacement.

5. In an adjustable garment frame including relatively slidable adjacent parallel wire members, spaced means for slidably guiding said adjacent wire members, and other means pivotally mounted on one of said wire members for movement transversely of the other adjacent wire member, said last named means serving to distort the parallelism of said adjacent wire members for frictionally holding said adjacent wire members against relative slidable displacement.

6. In an adjustable garment frame including relatively slidable adjacent parallel wire members, each of said slidable adjacent wire members having eyelets at their free extremities for receiving the other adjacent wire member for slidably guiding said adjacent wire members, and other means pivotally mounted for movement transversely of said adjacent wire members between said eyelets to distort the parallelism of said adjacent wire members for frictionally holding said adjacent wire members against relative slidable displacement.

7. In an adjustable garment frame including relatively slidable adjacent parallel wire members, each of said slidable adjacent wire members having integral eyelets at their free extremities for receiving the other adjacent wire member for slidably guiding said adjacent wire members, a wire lever having an eyelet at one end for pivotal mounting on one of said adjacent wires between said guiding end eyelets thereon, and an angular extension in said lever for sliding contact with the other of said adjacent wires to flex said adjacent wires pivotally mounted for movement transversely of said adjacent wire members between said eyelets to distort the parallelism of said adjacent wire members for frictionally holding said adjacent wire members against relative slidalbe displacement.

8. In an adjustable garment frame including relatively slidable adjacent parallel wire members, each of said slidable adjacent wire members having integral eyelets at their free extremities for receiving the other adjacent wire member for slidably guiding said adjacent wire members, a wire lever having an integral eyelet at one end for pivotal mounting on one of said adjacent wires between said guiding end eyelets thereon, and an angular extension in said lever for transverse sliding contact with the other of said adjacent wires to flex said adjacent wires pivotally mounted for movement transversely of said adjacent wire members between said eyelets to distort the parallelism of said adjacent wire members for frictionally holding said adjacent wire members against relative slidable displacement.

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