Oct. 18, 1949. J. D. CONEY ET AL 2,484,808

GARMENT BLOCKER

Filed Dec. 12, 1945 2 Sheets-Sheet 1

FIG. 1.

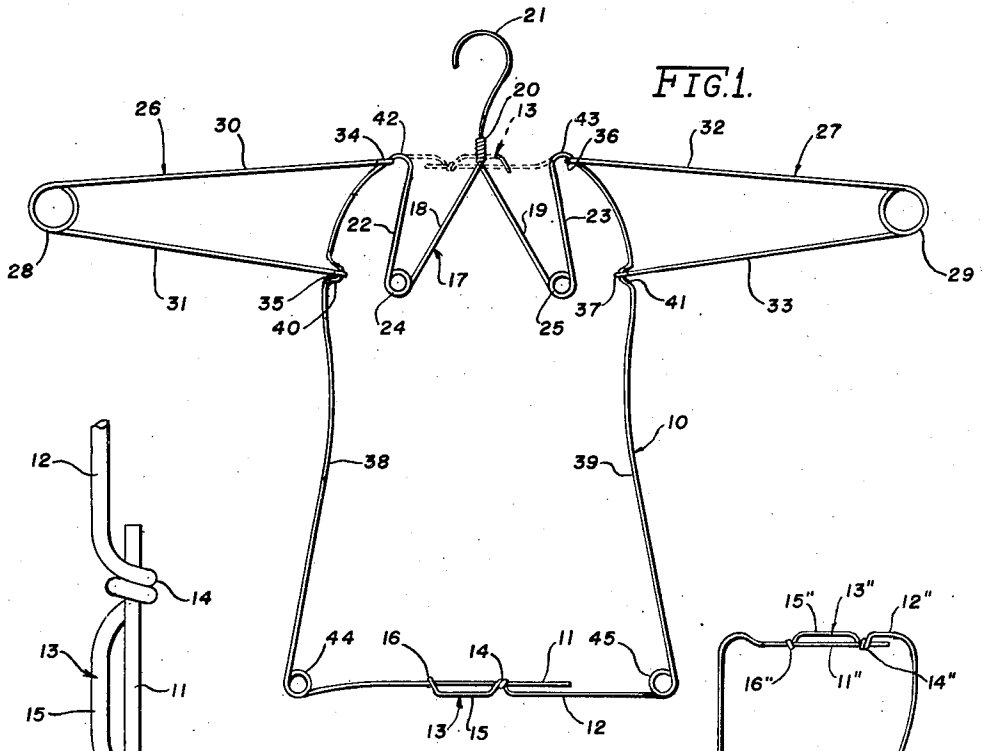






FIG. 6.

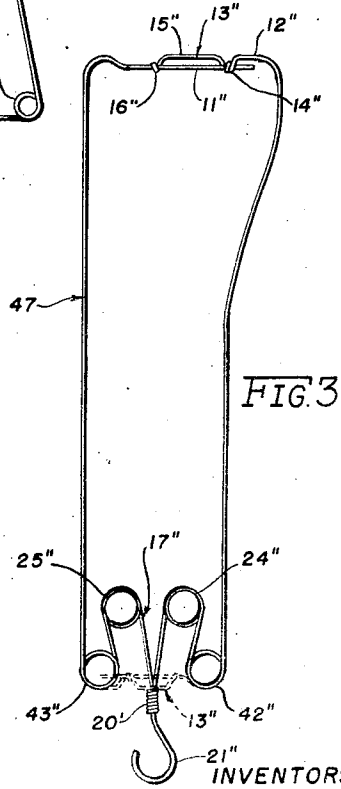



FIG. 3.

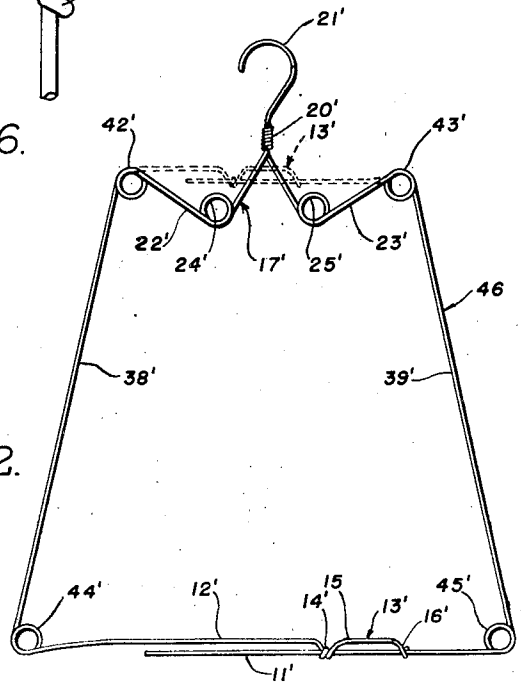



FIG. 2.

INVENTORS.
JAMES. D. CONEY.
CARL B. ALBERT.

BY Harry C. Geerts

ATTORNEY.

Oct. 18, 1949. J. D. CONEY ET AL 2,484,808

GARMENT BLOCKER

Filed Dec. 12, 1945 2 Sheets-Sheet 2

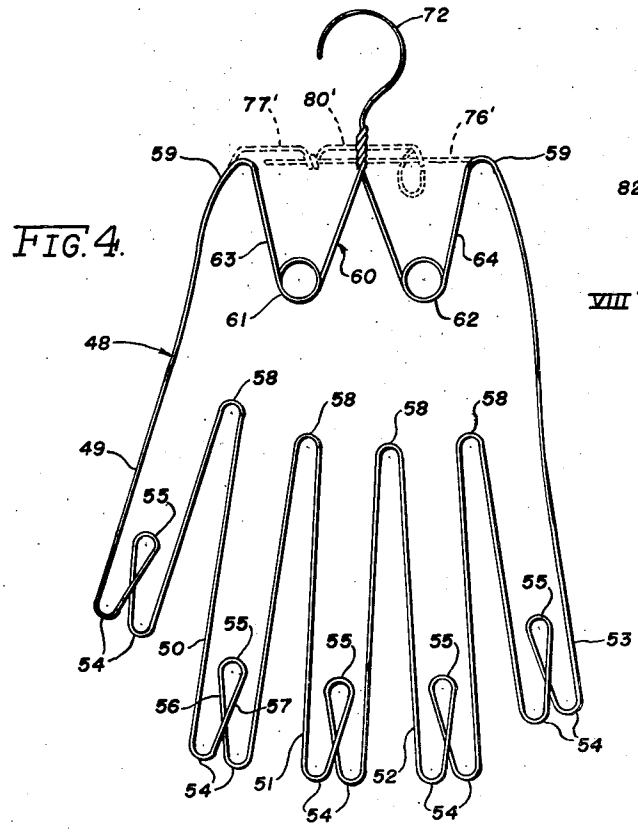



FIG. 4.

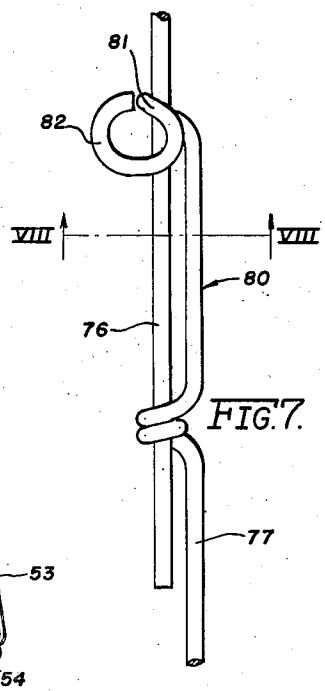



FIG. 7.

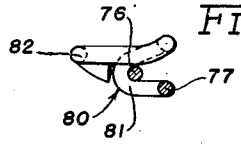



FIG. 8.

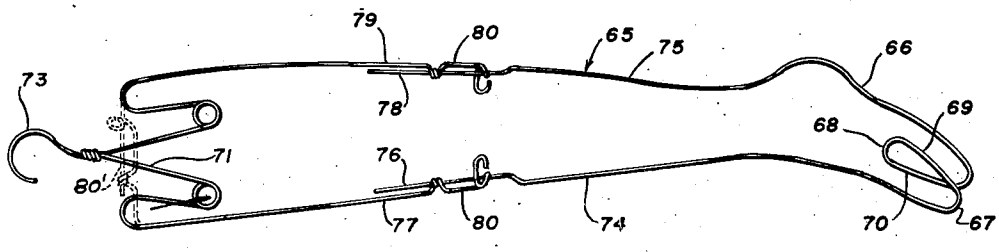



FIG. 5.

INVENTORS.
JAMES D. CONEY.
CARL B. ALBERT.
BY Harry C. Lecuter.
ATTORNEY.

Patented Oct. 18, 1949

2,484,808

# UNITED STATES PATENT OFFICE

2,484,808

## GARMENT BLOCKER

James D. Coney, Chicago, Ill., and Carl B. Albert, Milwaukee, Wis.; said Coney assignor to said Albert

Application December 12, 1945, Serial No. 634,429

4 Claims. (Cl. 223—69)

1

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

It contemplates more especially the provision of an inexpensive garment blocker 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 blocked or dried thereon.

These garments are normally of varied style and size to conform with the dimensional and shape characteristics of different individuals. To this end, the blocker is adjustable to different shapes and sizes and possesses self-expansible features to conform with the initial shape of the garment. The adjustable and the self-expanding characteristics conform with specifically shaped and sized garments in order to block such to assume their initial size and shape.

Numerous types of garment blockers have heretofore been proposed, but these have proven comparatively expensive and are not available for general distribution through cleaning establishments, laundries, and also other service institutions where the blocker should comprise a component element of the garment prior to the actual use thereof. This does not necessarily mean that garment blockers embodying the features of the present invention need be distributed by such institutions without charge but the cost thereof will be minimized to the extent of enabling the general adaptation thereof by service institutions such as cleaning establishments and laundries to provide such at nominal expense to 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 noncorroding 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 wire, preferably though not essentially, number eleven gauge which is comparatively light, inexpensive, and suitable for garment blockers utilizable for service institutions.

One object of the present invention is to provide an improved adjustable garment blocker of simple and inexpensive construction.

Another object is to provide a garment blocker

2

having the component elements thereof adjustable to meet different styled and sized garment characteristics.

Still another object is to provide garment blockers possessing self-expanding and size adjusting expedients to conform to different styles and shapes of garments and accessories.

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

A still further object is to provide adjustable garment blockers entirely shaped from wire without requiring anything other than wire working operations.

Still a further object is to provide inexpensive adjustable and self-expanding garment blockers embodying wire elements throughout affording 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 garment blocker embodying features of the present invention, it serving most effectively for the upper half or waist portion of a garment.

Figure 2 is a front view in elevation of a garment blocker embodying features of the present invention, it serving most effectively for the lower half or skirt portion of a garment.

Figure 3 is a front view in elevation of a garment blocker embodying features of the present invention, it serving most effectively as a trouser blocker and drier.

Figure 4 is a front view in elevation of a garment blocker embodying features of the present invention, it serving most effectively for the blocking, shaping and drying of gloves constituting a garment accessory.

Figure 5 is a front view in elevation of a garment blocker embodying features of the present invention, it serving most effectively for the blocking, shaping and drying of stockings.

Figure 6 is an enlarged detailed view of an adjusting clamp utilized in conjunction with the garment blockers embodying features of the present invention, it being entirely shaped from the same wire from which the garment blocker is constructed.

Figure 7 is an enlarged detailed view of a modified adjusting clamp utilized in conjunction with the garment blockers embodying features of the present invention, it being entirely shaped

from the same wire from which the garment blocker is constructed.

Figure 8 is a sectional view taken substantially along line VIII—VIII of Figure 7.

The structure selected for illustration is not intended to serve as a limitation upon the scope or teachings of the invention, but is merely illustrative 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 a sweater or waist shaped garment blocker or drier 10 bent or otherwise shaped from wire to present adjacent overlapping and relatively sliding wires 11—12 through which the overall size of the garment form 10 may be changed to conform with the desired size of the garment to be fitted thereover and dried thereon. Knitted garments are usually the type that require a drier or blocker to insure the initial shape and size thereof after washing or cleaning. In the present embodiment, the overlapping wires 11—12 are incorporated in the lower horizontal leg of the garment form 10 to provide for overall size adjustment by resort to a friction locking clamp 13.

The clamp 13 consists, in this instance, of a wire extension that is connected to the confronting wire 12 by a plurality of convolutions 14 defining an eyelet or closed loop or wire receiving coils slightly larger in interior diameter than the wire 11 which is freely slidable therethrough for displacement adjacent to the other confronting wire 12. The clamp 13 has an offset finger grasping portion 15 parallel to the confronting wire 11 and in axial alignment with the wire 12 from which it extends through the inwardly offset convolutions 14 defining the eyelet in registry with the wire 11. To enable the finger manipulating portion 15 of the clamp 13 to engage the wire 11 to establish frictional contact therewith, the finger grasping clamp portion 15 terminates in an angularly disposed hook 16 that extends in the direction of the wire 11 in line with the eyelet 14 to engage the wire 11 to establish frictional contact therewith in the region of the eyelet 14 and the hook 16.

This precludes the slipping of the wire 11 relative to the wire 12, and maintains the garment form 10 in its adjusted size insofar as the length of the lower horizontal leg thereof influences its overall size. To change the length of the lower horizontal leg of the garment form 10, the hook 16 is displaced from engagement with the wire 11 to permit free relative sliding movement between the confronting wires 11—12 until the hook 16 of the clamp 13 is again sprung into engagement with the wire 11. The eyelet convolutions 14 freely slip along the wire 11 when the finger manipulating clamping bar or portion 15 is at an angle to the wire 11 to bring the eyelet 14 in alignment therewith rather than at wedging angle with the hook 16 in operative engagement with the wire 11.

The upper neck portion of the garment form 10 is, in this instance, provided with a self-expansible portion defined by substantially W-shaped intermediate leg 17 consisting of separate wires 18—19 which are twisted together as at 20 for termination in a hanger hook 21. The hanger hook 21 projects from the inclined legs 18—19 of the self-expansible garment form leg 17, to always assume a central position for balanced anchoring support of the garment form 10 and the garment disposed thereover. In order to render the intermediate top leg 17 of the garment form 10 self-expansible, the converging legs 18—22 and 19—23 thereof are convolutely connected by spring coils 24—25 that normally cause the converging legs 18—22 and 19—23 to spread the garment form 10 outwardly to assume its maximum unrestrained size which will also be a factor of the relative extension of the confronting wires 11—12. This will tension the garment thereover to assume its normal size in that the strength of the coils 24—25 are only of such magnitude to tension the garment without stretching the interwoven threads beyond their normal size.

Should commercial practise so dictate, the self-expansible leg 17 may be substituted by a friction clamp 13 (shown in dotted outline) similar to the lower horizontal leg of the garment form 10 to provide for the overall adjustment in size without any self-expanding influence. The garment form 10 is provided with detachably associated or permanently connected arm forms 26—27 which preferably though not essentially are provided with self-expanding spring coils 28—29 defining the free end extremities thereof. The spring coils 28—29 have integral divergent wire extensions 30—31 and 32—33, respectively, for connection with the garment form 10. The arm forms 26—27 have their divergent wire extensions 30—31 and 32—33 terminating in hooked ends 34—35 and 36—37 for detachable or permanent connection to the sides of the garment form 10 in the upper or shoulder region thereof proximate to the upper connecting legs 17 thereof.

So that the arm forms 26—27 may be effectively associated with the garment form 10, the side legs 38—39 thereof are preferably though not essentially provided with inwardly offset open loops 40—41 which receive the end hooks 35—37 of the divergent arm members 31—33 while the upper arm members 30—32 have their hooked ends 34—36 in engagement with the curved terminal ends 42—43 defined in the garment form 10 between the top leg 17 and the side legs 38—39 thereof. The spreading urge of the arm members 30—31 and 32—33 imparted by the end spring coils 28—29 maintains the arm hooks 34—36 in engagement with the upper terminal ends 42—43 of the garment form 10. The spread of the upper ends 42—43 of the garment form 10 is also contributed by corner spring coils 44—45 which connect the confronting legs 11—12 with the side legs 38—39, respectively.

The same structure can be adapted to a skirt form 46 (Figure 2) wherein the bottom leg consists of the overlapping wires 11'—12' having the identical clamp 13' associated therewith to provide variations in overall size. The upper leg 17' is, in this instance, provided with self-expansive coils 24'—25' extending from legs 22'—23' which terminate in spring coils 42'—43' defining the upper ends of the garment form side legs 38'—39'. The self-expansible leg 17' has, in this instance, a hanger hook 21' formed thereon similar to the hook 21 provided on the sweater or waist garment form 10. The lower ends of the side legs 38'—39' are provided with spring coils 44'—45' which contribute to the spread of the side legs 38'—39' imparted by the upper spring coils 24'—25' and 42'—43'. Should commercial practise so dictate, the self-expanding elements comprising the spring coils 24', 25', 42', 43, 44' and 45' may be dispensed with and a friction clamp 13' substituted therefor to comprise an upper leg as shown in dotted outline.

The trouser garment form 47 (Figure 3) is similarly constructed and embodies the friction clamp 13'' along the upper horizontal leg proximate to the hip region of the garment form 47. The self-expansible leg 17'' is disposed, in this instance, along the cuff portion of the garment form 47, and may be provided with a hanger hook 21'' similar to the garment forms 10 and 46.

A glove form 48 (Figure 4) is similarly constructed and for purposes of this disclosure, the term "garment" is applicable to all types of clothes and accessories worn by individuals. No distinction is herein made between accessories and garments and these terms should be interchangeably construed as equivalent without departing from the scope or application of the concepts comprising the subject matter of the present invention. The glove form 48 has usual appendages such as the thumb 49 and the fingers 50, 51, 52 and 53. The garment or accessory form 48 is shaped from wire to generally approximate the shape of a glove wherein the thumb and finger tips 54 are rendered self-expansible by means of forming closed loops 55 therein that extend inwardly from the split thumb and finger tips 54.

The inwardly extending closed loops 55 are defined by cross wires 56—57 which merge in the split tips 54 to provide self-spreading or expansible thumb and finger portions or appendages to the garment or accessory form 48. This is highly desirable in order to enable fabric or leather gloves to be tensioned to their normal configuration during the drying thereof after washing or cleaning operations thereon. Should commercial practise so dictate, the split tips 54 and the closed loops 55 may be substituted by spring coils similar to the spring coils 28—29 of the garment form arms 26—27 disclosed and described in connection with the illustrated embodiment in Figure 1. As shown, the thumb 49 and fingers 50, 51, 52, and 53 are connected by fillets or curves 58 which may also be substituted by spring coils to provide greater expansibility in the thumb and finger region, should commercial practise so dictate.

The wrist portion 59 of the garment or accessory form 48 is provided with a self-expansible connecting leg 60 similar to the connecting legs 17, 17' and 17'' of the previously described garment forms 10, 46, and 47, respectively. This involves the spring coils 61—62 terminating in legs 63—64 that merge into the wrist portion 59 of the garment or accessory form 48.

In the garment accessory form 65 which resembles a stocking in configuration, the foot portion 66 thereof has a split tip 67 that is rendered self-expansible by the inwardly extending closed loop 68 defined by the cross wires 69—70 similar in construction to the split thumb and finger tips 54 provided on the garment or accessory form 48 (Figure 4). This renders the toe expansible to fill out the foot 66 to conform with the size of the stocking foot disposed thereover. The upper or knee end of the stocking form 65 is provided with a self-expansible leg 71 conforming in construction to the leg 60 embodied on the garment or accessory form 48. The expansible legs 60—71 preferably though not essentially terminate in hanger hooks 72 and 73 to conveniently support the garment forms 48 and 65 and the garments or accessories disposed thereover. This will provide for the full and proper tensioning of the stocking or other accessory or garment thereover. The side members 74—75



defining the regular portion of the garment form 65, may be rendered accessible by overlapping confronting portions 76—77 and 78—79 which comprise part of friction clamps 80 (Figures 5 and 7). The friction clamps 80 are similar in construction to the friction clamps 13, 13' and 13'' illustrated in the previous embodiments (Figures 1 to 3 and 6).

In the friction clamp 80, however, the engaging hook 81, conforming to the engaging hook 16 in the embodiment disclosed in Figure 6, has a curved finger grasping extension 82 which enables the more effective manipulation thereof to detach or attach the overlapping confronting wire members 76—77 or 78—79 or any other adjacently disposed relatively sliding members for the purpose of maintaining them in any desired extensible relation. As shown, the clamp 80' can be applied to the garment or accessory form 48 by substituting it for the self-expanding leg 60 as illustrated in dotted outline in Figure 4. This is similarly applicable to the stocking form 65 in lieu of the self-expansible leg 71. For that matter, the friction clamps 13 and 80 may be interchangeably used depending upon the dictates and preference established by commercial practise. It will be apparent, therefore, that inexpensive garment and/or accessory forms can be shaped from wire or other suitable materials to conform to different styles, shapes and sizes and to impart thereto tension wherever desirable in whole or in part to the garment or accessory or any appendages or portions thereof. This is more conducive to more effective shaping of the garment during the drying process to assume its or their initial shape.

While we 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. We, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail ourselves of such variations and modifications as come within the scope of the appended claims.

We claim:

1. A garment form having appendage defining portions conforming to portions of a garment to be sized thereon, self-expansible spring means formed in said appendage portions to tension the corresponding portions of a garment thereon, and means sprung between confronting portions of said garment form to adjust the overall size of said garment form.

2. A garment form shaped from wire having adjacent overlapping relatively free sliding smooth portions to vary the overall size of said garment form, and means adjustably sprung on said overlapping wires to frictionally maintain said garment form in any adjusted size within the otherwise free sliding limit of said overlapping portions.

3. In a device for clamping overlapping extensible wires or the like comprising a wire clamping element, wire receiving coils convoluted on said wire clamping element to relatively guide said overlapping wires, and an adjustable hook on said clamping element for springing engagement of said overlapping wires against relative displacement.

4. In a device for clamping overlapping extensible wires or the like comprising a garment form, one of said extensible wires having a convoluted eyelet therein to slidably receive the other

of said overlapping wires, and an adjustable hook on said convoluted eyelet wire for springing engagement with said slidably guided wire to functionally maintain said overlapping wires in adjusted relation.

JAMES D. CONEY.
CARL B. ALBERT.

## REFERENCES CITED

The following references are of record in the file of this patent:



UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 692,101 | Anderson | Jan. 28, 1902 |
| 706,026 | Crawford | Aug. 5, 1902 |
| 823,376 | Twitchell | June 12, 1906 |
| 877,226 | Timberlake | Jan. 21, 1908 |
| 945,231 | Gustafson | Jan. 4, 1910 |
| 1,052,426 | Ringler | Feb. 4, 1913 |
| 2,161,451 | Bolek et al. | June 6, 1939 |
| 2,378,922 | Grant | June 26, 1945 |