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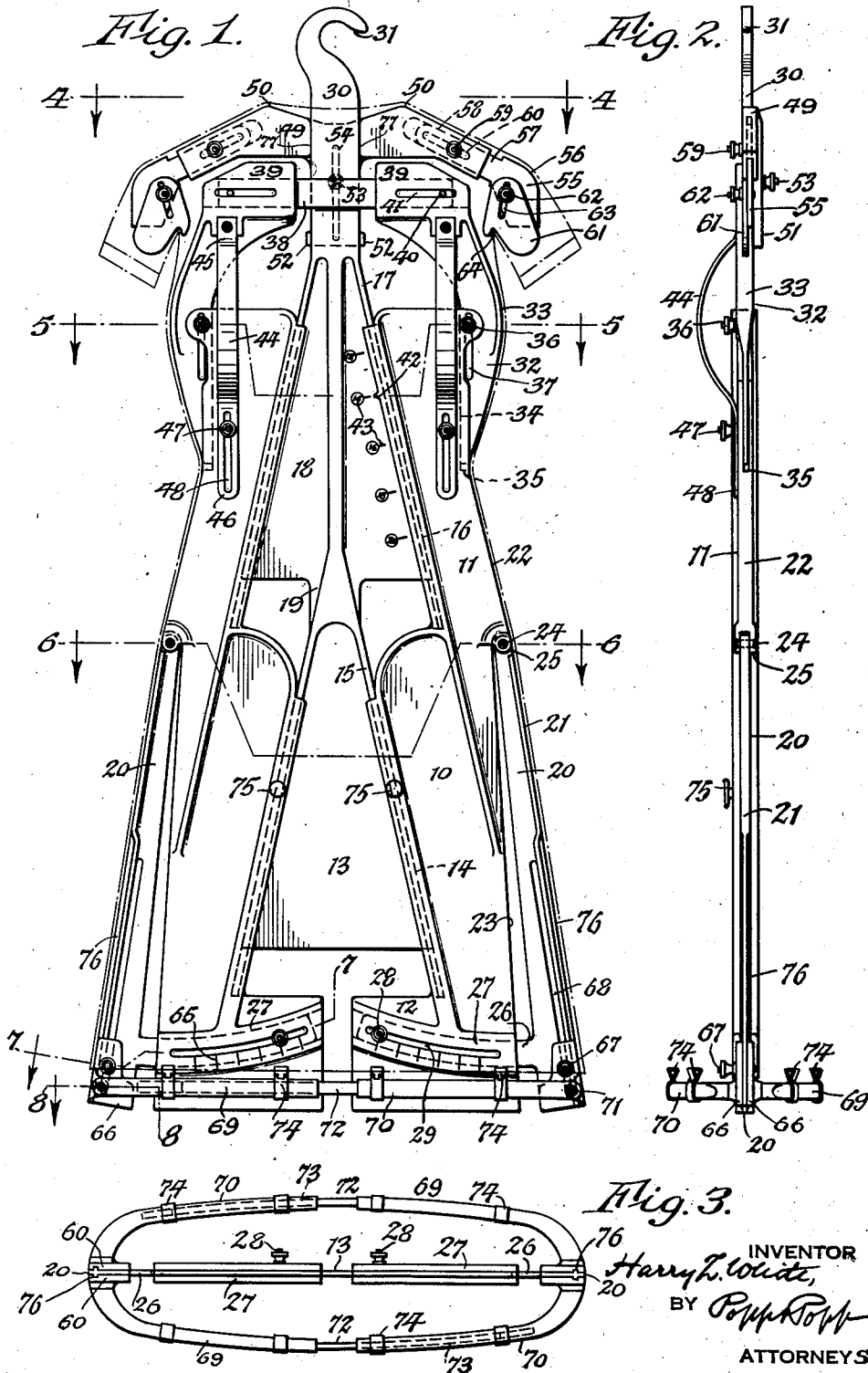
H. Z. WHITE

2,355,577

ADJUSTABLE GARMENT SHAPING FORM

Filed April 8, 1943

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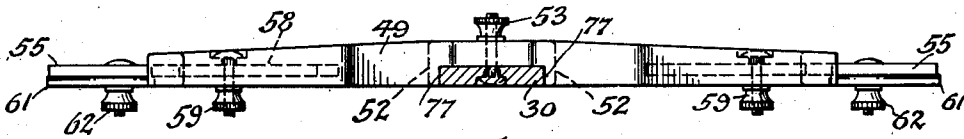
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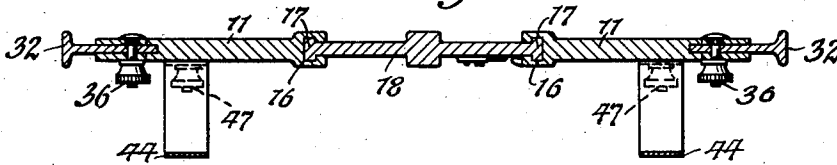
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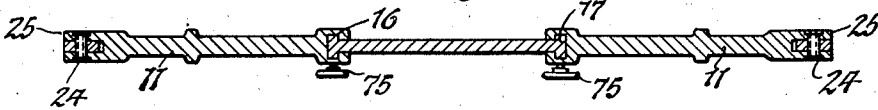
*Fig. 4.*



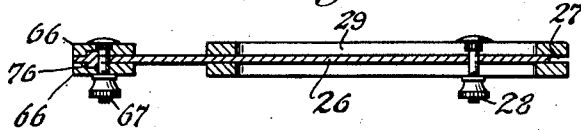
*Fig. 5.*



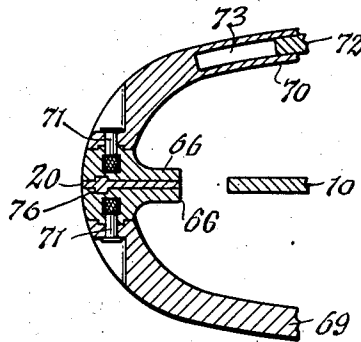
*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



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## UNITED STATES PATENT OFFICE

2,355,577

## ADJUSTABLE GARMENT SHAPING FORM

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4 Claims. (Cl. 223—68)

This invention relates to an adjustable garment form upon which dresses are draped after the same have been washed or cleaned and thereby prevented from shrinking but instead are maintained at the proper size to fit the person who is to wear the garment.

It is the object of this invention to provide an adjustable form of this character which is simple in construction, which can be readily adjusted to suit varying lengths, widths and shapes of dresses or similar garments, which is comparatively flat so that the same can be stowed in a small space either empty or when loaded with a garment, and which can be practically constructed almost exclusively of materials such as plastics, which during the present war emergency are non-critical and more readily obtainable than materials of a critical character which are essential for war equipment, such as steel, iron, copper, aluminum and the like.

In the accompanying drawings:

Fig. 1 is a front elevation of an adjustable garment shaping form embodying this invention.

Fig. 2 is a side edge view of the same.

Fig. 3 is a bottom plan view of the same.

Figs. 4, 5, 6, 7 and 8 are horizontal sections, on an enlarged scale, taken on the correspondingly numbered lines in Fig. 1.

In the following description similar reference characters indicate like parts in the several figures of the drawings.

In general this adjustable shaping form comprises a body having a skirt holder adapted to support the skirt portion of the dress, a waist holder adapted to support the waist portion of the dress, a shoulder holder adapted to support the shoulders of the dress, means for adjusting the width of the skirt and waist holders, means for supporting the lower edge of the skirt at different heights, means for varying the width of the shoulders, and means for varying the bust formation to suit the garment to be shaped.

The skirt holder of the body comprises two comparatively flat lower sections which are arranged on opposite sides of the vertical center of the form and each of which is preferably constructed of plastic material so as to produce an upright wide lower part 10, an upright narrow upper part 11 projecting upwardly from the outer edge of the lower part and a horizontal wing 12 projecting inwardly from the lower end of the lower part 10. The lower parts 10 of both sections of the skirt holder are inclined and provided on their opposing inner edges with up-

wardly converging guide faces 14 which are engaged by upwardly converging guide faces 15 which are formed on the opposite edges of a vertically movable lower adjusting wedge 13 which is flat and preferably constructed of plastic material. The cooperating inclined faces of each lower part 10 of the skirt holder or supporter and the lower wedge 13 are preferably connected in such manner that the same can slide lengthwise relative to one another but are prevented from moving laterally by constructing each inner inclined face 14 of the part 10 in the form of an undercut channel or groove and constructing each inclined face 15 of the lower wedge 13 in the form of a widened fan-tail or T-shaped rib which slides in said groove which is of corresponding shape, as shown in Figs. 1 and 6.

The upper parts 11 of both sections of the skirt holder are inclined and provided on their opposing inner edges with upwardly converging guide faces 16 which are engaged by upwardly converging guide faces 17 which are formed on the opposite edges of a vertically movable upper adjusting wedge 18 which is flat and preferably made of plastic material. The cooperating inclined faces of each upper holder part 11 with the upper wedge 18 are preferably so connected that the same can slide lengthwise relatively to one another but are held against separating laterally, this being preferably accomplished by constructing each inclined face 16 in the form of an undercut groove while the inclined face 17 has the form of a widened or T-shaped rib which fits into this groove, as shown in Figs. 1 and 5. The lower and upper wedges 13 and 18 are connected at their central opposing edges by means of a web 19 so as to compel the same to move in unison.

Upon moving the wedges 13 and 18 vertically upward relative to the lower skirt holder sections, the latter will be spread apart by the wedge action of the cooperating inclined surfaces 14, 15 and 16, 17 and upon lowering these wedges the lower holder sections will be drawn together, thereby permitting these sections of the skirt holder to be adjusted to suit the size of this particular part of the garment which is to be dried and shaped. The cooperating surfaces 14, 15 and 16, 17 of the wedges and holder sections practically form dovetail joints between the respective members which permit them to slide upon one another but hold the same against lateral displacement relative to each other.

In order that the skirt supporting holder of

the form may be adjusted to suit dresses having downwardly flaring or bell formations of different angles or sizes the lower part of the outer upright edge of each skirt holder section is provided with a laterally adjustable upright wing 20 the outer edge 21 of which registers with the adjacent upper edge part 22 of the respective holder section which edges together are adapted to engage the inner side of the upper hip portion and the lower leg portion of the skirt of the same. This wing 20 is arranged in a recess 23 on the lower outer edge of the respective section of the skirt holder and is adapted to be moved more or less out of the same by connecting the upper end of this wing by a pin 24 with a lug 25 which overhangs this recess, as shown in Fig. 1, so that this wing can swing laterally into different angles relative to the respective skirt holder section. The skirt may be held in the desired angular position relative to the respective skirt holder section by a segment 26 projecting inward from the lower part of the respective skirt holder section into a curved guideway 27 on the adjacent part of this wing 12 and held in place by a fastening bolt 28 mounted on this segment and passing through a curved slot 29 in this guideway. The position of the skirt wing may be determined by means of graduations 65 on the guideway 27 traversed by the clamping bolt 28, as shown in Figs. 1 and 7.

Centrally at its upper end the upper wedge 18 is provided with an upwardly projecting neck 30 which terminates in a hook 31 whereby this device may be suspended on a nail or the like together with the garment which may be draped for drying the same to the desired size.

The waist holder of the adjustable form comprises two relatively flat sections which are preferably constructed of plastic material and arranged on opposite sides of the center of the device, each section comprising an upright waist bar 32, the outer edge 33 of which curves outwardly while the lower part of its inner edge 34 is straight and slides vertically in a vertical guide groove 35 in the adjacent upper portion of the outer edge of the respective upper narrow part 11 of one of the waist holder sections, as shown in Figs. 1, 2 and 5. After each waist side bar has been adjusted to the desired vertical position to suit the waist of the garment which is to be dried thereon, each waist bar is held in position by a clamping device which preferably consists of a clamping bolt 36 mounted on the upper part of the adjacent skirt holder section and passing through a vertical slot 37 in the waist bar, as shown in Figs. 1 and 5.

Means are provided for maintaining the waist side bars in horizontal alinement and also permit them to move toward and from each other at the same time that the skirt and waist holders are contracted and expanded to suit the dimensions of the garment to be dried. The means for this purpose which are satisfactory comprise a horizontal equalizing bar 38 arranged across the neck 30, adjusting heads 39 arranged at the upper ends of the waist bars 32 and slidable transversely on the opposite ends of the equalizing bar 38, and stop means for limiting the movement of said heads on the equalizing bar, which stop means may consist of stop pins 40 mounted on the equalizing bar and passing through slots 41 in the adjusting heads 39, as shown in Fig. 1.

For the purpose of readily determining the position of the wedges relative to the skirt and waist holders and the parts carried thereon, indicating means are provided which preferably

consist of a pointer 42 arranged on the upper part of the inner edge of one of the skirt holder sections and traversing a scale or row of graduations 43 on the adjacent part of the upper wedge, as shown in Fig. 1.

In order to conform the front part of the waist of the garment which is being dried, distending means are provided which preferably consists of two upright leaf springs or flexible strips of wood or the like arranged on opposite sides of the center of the apparatus adjacent to the waist and each having a central forwardly projecting bow 44 adapted to engage the breast portion of the garment from its inner side, a flat upper tab 45 at the upper end of the bow secured to the respective head of the waist side bar, and a flat lower tab 46 adjustably secured to the adjacent part of the respective section of the skirt holder by means of a clamping bolt 47 mounted on said skirt holder section and passing through a vertical slot 48 in said lower tab, as shown in Figs. 1, 2 and 5. Upon loosening the bolts 47 the bows 44 may be projected or retracted into the desired position and then held in place by tightening these bolts.

Above the waist holder sections means are arranged for supporting the garment on the inner side of the shoulders and around the neck opening of the same. In the preferred form these shoulder supporting means are constructed as follows:

The numeral 49 represents a yoke arranged transversely across one side of the neck 30 and having its upper edge 50 on opposite sides of this neck shaped to support the inner side of the shoulder of the garment on opposite sides of the neck opening thereof. This yoke is adjustably supported on the neck 30 of the dress form so that it can be raised and lowered thereon to suit the length of the garment. In the preferred construction this adjustable connection includes a shank 51 projecting downwardly from the central part of the yoke and slidable vertically on the adjacent part of the neck 30 and provided on its lower part with two guide shoulders 52 which embrace the lower part of this yoke, and provided on its upper part with guide shoulders 77 which engage with opposite sides of the upper part of this shank, as shown in Figs. 1 and 4, thereby confining the yoke and shank against lateral displacement on the neck 30. Vertical adjustment of the yoke on this neck is effected by sliding the yoke and shank vertically into the desired position and then fastening the same together by a clamping bolt 53 mounted on the neck 30 and passing through a vertical slot 54 in the shank.

Means are provided for varying the width of the surface which supports the shoulders of the garment being dried in order to suit garments of varying shoulder widths, which means in their preferred form are constructed as follows:

The numeral 55 represents two shoulder extensions which are adjustably mounted on the outer ends of the yoke 49 and each having a rounded face 56 at its upper outer part or corner which is adapted to engage with the inner side of the upper part of the armhole of the garment between one of the shoulders and the respective sleeve of the garment for supporting the same in a natural spread out position while being dried. The preferred means for effecting this adjustment shown in the drawings consist of a shank 57 projecting inwardly from each shoulder extension 55 and slidably engaging a guideway 58 in the respective end of the yoke and means for

holding this extension in the desired adjusted position consisting of a clamping or fastening bolt 59 mounted on the yoke and passing through a longitudinal slot 60 in the shank of the respective extension, as shown in Figs. 1, 2 and 4.

It is desirable to hold the parts of the garment around the armholes in a vertically taut or spread apart position and means are therefore provided for engaging the inner side of the lower part of each armhole by retaining means so that the same, in cooperation with the respective yoke extension, will support this part of the garment in the proper position and maintain the same of the desired size while being dried. Each of these retaining means preferably includes a distender 61 having preferably the form of a plate which is mounted at its upper end on the respective extension and engages its lower end with the inner side of one of the armholes of the garment, as shown in Fig. 1. Each of these distenders is mounted at its upper end on the lower part of the respective shoulder extension by means which permit of swinging this distender laterally and also moving the same vertically relative to this extension to permit of engaging the lower end of this distender with the lower side of armholes which may be variously located. The drawings show acceptable means for effecting such adjustment and, as there shown, the same consist of a clamping bolt 62 mounted on the yoke extension and passing through a vertical slot 63 in the respective distender. In order to enable the distender to reliably engage the lower side of the armhole the lower end of the distender is provided with a notch 64 which receives the ridge on the lower part of the armhole between the sleeve and the waist or bodice and thus prevents the distender from slipping out of place.

Inasmuch as dresses and similar garments vary in length this adjustable form is provided with means which are connected with the lower end of the garment and serve to hold the same in a downwardly drawn position and also distend or spread the lower part of the skirt into downwardly flaring bell or balloon-like shape, so as to cause the dress to dry quickly and evenly and maintain its shape and size.

The means for producing this hold-down and spreading effect on the dress are preferably constructed as follows:

The numeral 66 represents two pairs of slides of which the members of each pair are arranged on opposite sides of the lower part of each of the wings 20 of the skirt holder and are capable of being adjusted vertically thereon by means of a clamping bolt 67 passing through both of the respective slide members and through a vertical slot 68 in the adjacent part of the respective wing 20, as shown in Figs. 1, 2, 3 and 7. Planar displacement of the slides 66 relative to the wings 20 is prevented by providing the opposing surfaces of these slides and wings, respectively, with interengaging longitudinal ribs and grooves, as shown at 76 in Figs. 1, 2, 3, 7 and 8. Around the lower ends of the skirt holder sections and wings an annular spreading hoop is arranged which is adapted to be attached to the lower end of the skirt and hold the same downwardly and in a spread-out position. In its preferred construction this hoop is made adjustable as to the diametrical size of the dress at its lower end and this is accomplished by making the same of telescopic form so that the same can be expanded and contracted to suit the circumferential dimensions of the skirt at its lower end.

As best shown in Figs. 1, 2, 3 and 8 this hoop comprises a pair of outwardly curved bowed spreading bars 69, 70 arranged on opposite sides of the lower part of one of the skirt holder sections and its wing and connected at their outer ends to outer sides of the respective slides 66 by means of horizontal pivots 71 so as to permit each of these spreader bows and its slide 66 to swing in vertical planes relative to each other when adjusting the hoop from one size to another. One spreader bow of each pair is provided with a bridging strip 72 projecting inwardly from the inner end thereof and adapted to slide horizontally in a guideway 73 formed on the opposing inner end of the respective spreader bar of the other pair, as shown in Figs. 1, 3 and 8, whereby the circumference of the hoop may be increased and decreased by sliding the bridging strips and guideways on inner ends of the spreader bars lengthwise relative to each other and thus enabling this part of the drying form to be adjusted to dresses varying in circumference at their lower ends. Various means may be employed for detachably connecting the spreader bars with the lower edge of the skirt on opposite sides of the hoop, such, for example, as a plurality of spring clasps 74 mounted in an oval row of the spreader bars and adapted to grasp the lower end of the skirt, as shown in Figs. 1, 2 and 3.

When moving the spreader bars of the hoop toward and from each other, and moving the wings 20 of the skirt holder horizontally and moving the slides vertically on the wings, the spreader bars and wings turn about the pivotal connections between the same and thus permit the spreader bars to move horizontally and the wings to swing in a vertical plane without any cramping action between these parts. After such adjustment has been effected, these parts are held in place by tightening the clamping bolts 67.

Preparatory to draping a dress on this form the lower and upper wedges 13 and 18 are moved vertically for bringing the skirt and waist holder into the proper position to suit the size of the waist and hip measurements of the dress to be dried after which these parts are maintained in this position by retaining means, such as the set screws 75 mounted on the lower parts 10 of the skirt holder and engaging the adjacent parts of the wedge 13. Thereafter the yoke and shoulder extensions are adjusted on the neck of the wedge for supporting the shoulders and sleeves of the garment in the desired position and the bow springs 44 are bulged more or less to fit the bust of the dress. The wings 20 of the skirt holder sections are adjusted laterally to fit the required angularity of the leg portion of the skirt and the spreading hoop is adjusted horizontally to the circumference of the skirt and also adjusted vertically to suit the length of the dress. Upon attaching the clasps 74 to the lower edge of the dress the same will be held in a downwardly drawn position on the yoke and sleeve supports which have been previously adjusted to the required position, so that the form is now ready for drying the dress which has been draped thereon in accordance with the required size of the several parts of the dress and permitting the latter to be worn immediately after such drying with perfect comfort and without requiring any further treatment or adjustment.

I claim as my invention:

1. An adjustable garment shaping form, com-

prising body sections adapted to engage the sides of the garment, wedge means for moving said body sections laterally relative to one another and including an upwardly projecting neck, a yoke extending across said neck and adapted to engage the shoulders of the garment, a slide carrying said yoke and movable vertically on said neck, and means for guiding and clamping said slide on said neck.

2. An adjustable garment shaping form, comprising body sections adapted to engage the sides of the garment, wedge means for moving said body sections laterally relative to one another, a yoke connected with said wedge means and adapted to engage the shoulders of the garment, extensions adjustably mounted on the ends of said yoke and adapted to engage the upper part of the sleeves of the garment, and distenders mounted on the extensions and adapted to engage the lower part of said sleeves, each of said distenders consisting of a plate pivoted on one of said extensions and provided on its upper end with a slot which receives a bolt on the respec-

tive extension while the lower part of this plate is provided with a notch which is adapted to receive the ridge on the lower part of a sleeve arm-hole.

5 3. An adjustable garment shaping form, comprising relatively movable body sections adapted to engage the sides of the garment, slides adjustable vertically relative to said body sections, and a hoop adapted to be connected with the lower edge of the garment and having bows which are pivoted on said slides and are slidably connected with one another.

10 4. An adjustable garment shaping form, comprising relatively adjustable body sections having surfaces adapted to engage hip portions of the garment, wings pivoted at their upper ends on said body sections and adapted to engage leg portions of the garment, slides adjustable vertically on said wings, a hoop having relatively adjustable bows pivoted on said slides, and clasps mounted on said bows and adapted to grasp the lower end of the skirt of the garment.

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