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DRAWINGS ATTACHED

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(19)

(54) IMPROVEMENTS IN OR RELATING TO DRESSMAKING FORMS

(71) We, A. E. ARTHUR LIMITED, a British Company of 207—209, Gipsy Road, West Norwood, London, S.E.27, do hereby declare the invention, for which we pray that a Patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention concerns improvements in or relating to dressmaking forms and has for its object the provision of a form comprising adjustable body sections and neck portions which are capable of being adjusted accurately to suit required dimensions in a simple and expeditious manner.

Broadly, according to the present invention, there is provided a dressmaking form which comprises an assembly of radially adjustable body sections and wherein meeting or opposed edges of adjacent sections are interconnected by adjusting means for increasing or decreasing the overall circumferential size of a particular body part, for example hips, waist and bust, said adjusting means each comprising spaced apart toothed rack-like members having a toothed rotatable part or pinion interposed between them and to which members adjacent sections are connected, the arrangement being such that by turning said toothed rotatable part the rack-like parts are extended or contracted and the sections carried thereby adjusted to increase or decrease the overall circumferential size of the body-forming parts of the form.

Each of said adjusting means is operated by turning a size-indicating setting disc relatively to a dial.

Means is also provided which enables the waist and hip sections to be adjusted vertically relatively to the bust sections to allow for different depths of waist sizes.

To enable the invention to be clearly understood a preferred embodiment thereof will now be described by way of example with reference to the accompanying drawings wherein:—

Figure 1 is a front elevation of the dressmaking form showing the sections thereof closed together or contracted.

Figure 2 is a side elevation showing said sections extended.

Figure 3 is a front view of Figure 2 showing said sections extended.

Figure 4 is a section taken on the line A—A of Figure 1.

Figure 5 is a view similar to Figure 4 but taken on the line B—B of Figure 3 showing the body sections extended.

Figure 6 is a rear view of Figure 4 looking in the direction of the arrow "X" showing the sections contracted.

Figure 7 is a view similar to Figure 6 but looking in the direction of the arrow "Y" of Figure 5 showing the sections extended.

Figure 8 is a plan view of Figure 1.

Figure 9 is a section drawn to a larger scale and taken on the line C—C of Figure 1 showing the neck adjusting mechanism.

Figure 10 is a section taken on the line D—D of Figure 9.

Figure 11 is a section taken on the line E—E of Figure 1.

Figure 12 is a front elevation drawn to an enlarged scale illustrating mechanism facilitating relative vertical adjustments between the bust sections and the hip sections, and

Figure 13 is a section taken on the line F—F of Figure 12.

Referring firstly to Figures 1 to 3, the dressmaking form comprises a lower portion 1 and an upper portion 2 which combine to constitute bust, waist and hip portions, and each of the portions 1 and 2 comprises four sections 1a and 2a respectively, which are interconnected at their meeting or opposed

edges by setting or adjusting means indicated generally at 3 for increasing or decreasing the overall circumferential size of a particular body portion.

Each setting mechanism (see Figure 4 to 7) comprises a dished size-indicating dial 4 in which is rotatable a setting disc 5 having extending forwardly therefrom a radial bar 6 which can be gripped by a user of the appliance for turning the disc 5 and setting the bar 6 against the required size indication on a marginal portion 4a of the dial as shown in Figures 1, 2 and 3. This disc 5 is fixedly secured to the forward end of a spindle 7 which is slidable axially against the influence of a compression spring 8 which is interposed between the rear face of the disc 5 and the front wall of a relatively immovable part of a housing 9 said spindle being turnable and fitted with a small pinion wheel 10 which engages with and between toothed portions 11a and 12a of a pair of spaced apart rack-like parallel bars 11 and 12 to which the relatively adjustable sections 1a or 2a of the dressform are secured.

The rear end of said spindle 7 has fixedly secured thereto a locking bar 13 which can be engaged in radial grooves or recesses 14 in the rear face of the housing 9. The said radial grooves 14 each comprise a pair of aligned grooves located respectively one at either side of a central hole in the rear face of the housing 9 through which the spindle 7 passes.

In operation the setting bar 6 is pressed down and the disc 5 together with the spindle 7 is moved rearwardly slightly against the influence of the compression spring 8 to disengage the locking bar 13 from the radial grooves 14, whereupon the bar 6 together with said disc 5 can be turned and the bar 6 moved to bring an indicating mark 6a thereon against a different reading on said dial 4a, the locking bar 13, when the bar 6 is released, moving back and engaging in a registering groove 14. During turning of the bar 6 and disc 5 the pinion wheel 10 is rotated and moves the toothed bars 11 and 12 in opposite directions to move the sections 1a and 2a towards or away from one another to extend or contract the form and so increase or decrease its circumferential size of the body forming parts 1 and 2.

It will be readily appreciated that the adjusting mechanism can be quickly and easily operated to set the sections 1a and 2a of the dress form to a required circumferential size as regards bust, waist and hip measurements, and when the setting mechanism is released it becomes locked and will prevent unintentional or accidental movement of the setting mechanism.

The bust sections 2a or hip or waist-forming sections 1a, as the case may be, may conveniently be connected to the bars 11 and 12 by means of brackets 15 each fitted at one end to a section and at its other end being clamped at 16 to an associated bar.

Referring next to the adjustable neck device shown in Figures 8, 9 and 10, the principle of operation involved here is generally similar to that already described, and this adjustable neck device comprises two assemblies similar to those already described which are arranged horizontally and positioned to cross one another at their centres substantially at right angles.

Each assembly comprises bars 17 and 18 (similar to the bars 11 and 12) formed on their opposed edges with teeth or serrations 17a and 18a, and between these is located a toothed pinion-like part 19 mounted on a rod 20, the bars 17, 18 and the pinion 19 being located in a housing 21 from which extends a socket 22 (Figure 10) intended to be fitted to the upper end of a centre tube 23 of the dress-making form. In this adjustable neck device, however, the outer ends of the bars 17 and 18 are formed or fitted with arcuate segments 24 which, when the two assemblies are put together one above the other in substantially parallel horizontal planes, define an oval as shown in Figure 9 simulating a neck portion.

The undersides of the segments 24 are channelled at 24a to receive the upper neck-defining edges 25 of the sections 2a of the bust and these edges are secured to the segments 18 by rivetting.

The arrangement is such that the two assemblies forming the adjustable neck device are disposed almost horizontally, one closely beneath the other, with one end of an assembly fitted to a front part of the neck and the other end thereof secured to a rear part of the neck.

The said spindle 20 is formed or fitted with a setting disc 26 which is rotatable in a recess 27 in a cover plate 28, and the disc 26 and the base 27a of the recess are formed respectively with pipe-like projections 26a and recesses 27b to enable five or any other suitable number of settings to be effected, the disc 26 making a click by click movement as it moves into different setting positions. The disc 26 is conveniently formed with a setting bar 29 having an indicating mark 30 which can be set against neck size readings 31 on the cover plate 28.

Figures 1, 2 and 3 and 11 to 13 illustrate how the hip forming sections 1a are interconnected in a vertically adjustable manner respectively with associated and adjacent bust forming parts 2a.

The said sections 1a are each connected (see Figures 11 to 13) by a centralising strip 32 to an upper flanged end 33 of an outer sleeve 34 which is slidable over a tube 35 which is a tight push fit over the main centre tube 23.

It will be appreciated that when the sleeve 34 is slid up and down on the fixed tube 35 that the four sections 1a constituting the hip part are raised and lowered in unison towards or away from the sections 2a of the upper body part or bust 2 thereby varying the vertical dimension of the waist of the dress form which comprises the lower part of the upper body part 2 and the upper part of the hip part 1.

The said hip sections 1a are movable downwardly away from the bust part 1 against the influence of tension springs 36 (Figure 12) which, when permitted, re-assert themselves to return the hip parts 1a upwardly towards the bust parts 2a.

Locking means is provided for retaining the sections 1a of the hip part in a required set position as regards height. The said locking means conveniently comprises teeth 37 on the outer sleeve 34, or on a part supported thereby which can be moved, by turning the sleeve 34 about its axis slightly, into or out of engagement with complementary teeth 38 provided on the inner tube 35. The sleeve 34 is formed with an opening through which the interengaging teeth 37 and 38 are visible.

Assuming it is desired to increase the depth of the waist portion, the sleeve 34 is turned to disengage the teeth 37 from the teeth 38 (as shown in Figure 12) whereupon the outer sleeve 34 can be slid downwardly to move the hip sections 1a against the influence of the springs 36 farther away from the bust sections 1a, and the sleeve 34, at an appropriate position, is turned about its axis slightly in the opposite direction to re-engage the teeth 37 with the teeth 38 thereby preventing unintentional or accidental displacement of the outer sleeve 34 by the springs 36.

The lower edge 34a of the outer sleeve 34 can move vertically against a scale 39 bearing graduations indicating the amount of linear adjustment of said hip sections 1a.

The lower end of each of the bust sections 2a is fitted with a guide member 40 (Figures 1, 2 and 3) formed with holes in which are slidably engaged pins 41 upstanding from the top of an associated section 1a of the hip part.

Each of said guides 40 is made of any suitable rigid or substantially rigid material but is preferably made as an injection moulding of a suitable synthetic plastics material and is U-shaped in transverse cross section i.e. of channel section, the flanges thereof being located horizontally in spaced relation one above the other with the web abutted against the inside of the wall of said section with the mouth of the channel directed inwardly towards the centre post 23.

Each guide 40 is secured in a section 2a by eyelets, adhesive or in any other suitable manner.

In addition to serving as a guide for the pins 41 it will be appreciated that the guides 40 also serve as a stiffener for the bust part 2a which is conveniently made as a flexible vacuum formed section.

WHAT WE CLAIM IS:—

1. A dressmaking form comprising an assembly of radially adjustable body sections and wherein meeting or opposed edges of adjacent sections are interconnected by adjusting means for increasing or decreasing the overall circumferential size of a particular body part, for example hips, waist and bust, said adjusting means each comprising spaced apart toothed rack-like members having a toothed rotatable part or pinion interposed between them and to which members adjacent sections are connected, the arrangement being such that by turning said toothed rotatable part the rack-like parts are extended or contracted and the sections carried thereby adjusted to increase or decrease the overall size of the body-forming parts of the form.

2. A dressmaking form as claimed in Claim 1, wherein said pinion of each adjusting means is turned by a size indicating and setting member rotatable in relation to a dial, said member being spring loaded and movable axially against said spring to a position in which it can be turned relative to said dial and returned by said spring to lock it in a required set position.

3. A dressmaking form as claimed in Claim 1 or 2, including a radially adjustable neck portion comprising four sections having a rack-like part extending from an arcuate neck segment, pairs of the rack-like parts intersecting one above the other in different substantially horizontal planes and being in mesh with a common operating pinion actuated by a setting member rotatable in relation to a size indicating dial.

4. A dressmaking form as claimed in Claims 1, 2 or 3, including means whereby the waist

It will be appreciated that when the sleeve 34 is slid up and down on the fixed tube 35 that the four sections 1a constituting the hip part are raised and lowered in unison towards or away from the sections 2a of the upper body part or bust 2 thereby varying the vertical dimension of the waist of the dress form which comprises the lower part of the upper body part 2 and the upper part of the hip part 1.

The said hip sections 1a are movable downwardly away from the bust part 1 against the influence of tension springs 36 (Figure 12) which, when permitted, re-assert themselves to return the hip parts 1a upwardly towards the bust parts 2a.

Locking means is provided for retaining the sections 1a of the hip part in a required set position as regards height. The said locking means conveniently comprises teeth 37 on the outer sleeve 34, or on a part supported thereby which can be moved, by turning the sleeve 34 about its axis slightly, into or out of engagement with complementary teeth 38 provided on the inner tube 35. The sleeve 34 is formed with an opening through which the interengaging teeth 37 and 38 are visible.

Assuming it is desired to increase the depth of the waist portion, the sleeve 34 is turned to disengage the teeth 37 from the teeth 38 (as shown in Figure 12) whereupon the outer sleeve 34 can be slid downwardly to move the hip sections 1a against the influence of the springs 36 farther away from the bust sections 1a, and the sleeve 34, at an appropriate position, is turned about its axis slightly in the opposite direction to re-engage the teeth 37 with the teeth 38 thereby preventing unintentional or accidental displacement of the outer sleeve 34 by the springs 36.

The lower edge 34a of the outer sleeve 34 can move vertically against a scale 39 bearing graduations indicating the amount of linear adjustment of said hip sections 1a.

The lower end of each of the bust sections 2a is fitted with a guide member 40 (Figures 1, 2 and 3) formed with holes in which are slidably engaged pins 41 upstanding from the top of an associated section 1a of the hip part.

Each of said guides 40 is made of any suitable rigid or substantially rigid material but is preferably made as an injection moulding of a suitable synthetic plastics material and is U-shaped in transverse cross section i.e. of channel section, the flanges thereof being located horizontally in spaced relation one above the other with the web abutted against the inside of the wall of said section with the mouth of the channel directed inwardly towards the centre post 23.

Each guide 40 is secured in a section 2a by eyelets, adhesive or in any other suitable manner.

In addition to serving as a guide for the pins 41 it will be appreciated that the guides 40 also serve as a stiffener for the bust part 2a which is conveniently made as a flexible vacuum formed section.

WHAT WE CLAIM IS:—

1. A dressmaking form comprising an assembly of radially adjustable body sections and wherein meeting or opposed edges of adjacent sections are interconnected by adjusting means for increasing or decreasing the overall circumferential size of a particular body part, for example hips, waist and bust, said adjusting means each comprising spaced apart toothed rack-like members having a toothed rotatable part or pinion interposed between them and to which members adjacent sections are connected, the arrangement being such that by turning said toothed rotatable part the rack-like parts are extended or contracted and the sections carried thereby adjusted to increase or decrease the overall size of the body-forming parts of the form.

2. A dressmaking form as claimed in Claim 1, wherein said pinion of each adjusting means is turned by a size indicating and setting member rotatable in relation to a dial, said member being spring loaded and movable axially against said spring to a position in which it can be turned relative to said dial and returned by said spring to lock it in a required set position.

3. A dressmaking form as claimed in Claim 1 or 2, including a radially adjustable neck portion comprising four sections having a rack-like part extending from an arcuate neck segment, pairs of the rack-like parts intersecting one above the other in different substantially horizontal planes and being in mesh with a common operating pinion actuated by a setting member rotatable in relation to a size indicating dial.

4. A dressmaking form as claimed in Claims 1, 2 or 3, including means whereby the waist

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and hip sections can be adjusted vertically relatively to the bust sections to allow for different depths of waist sizes.

5. A dressmaking form constructed substantially as hereinbefore described with reference to and as illustrated by the accompanying drawings.

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