

Aug. 4, 1931.

S. SIMON

1,817,590

GARMENT STEAMING AND STRETCHING DEVICE

Filed Oct. 16, 1929

3 Sheets-Sheet 1

Fig. 1.

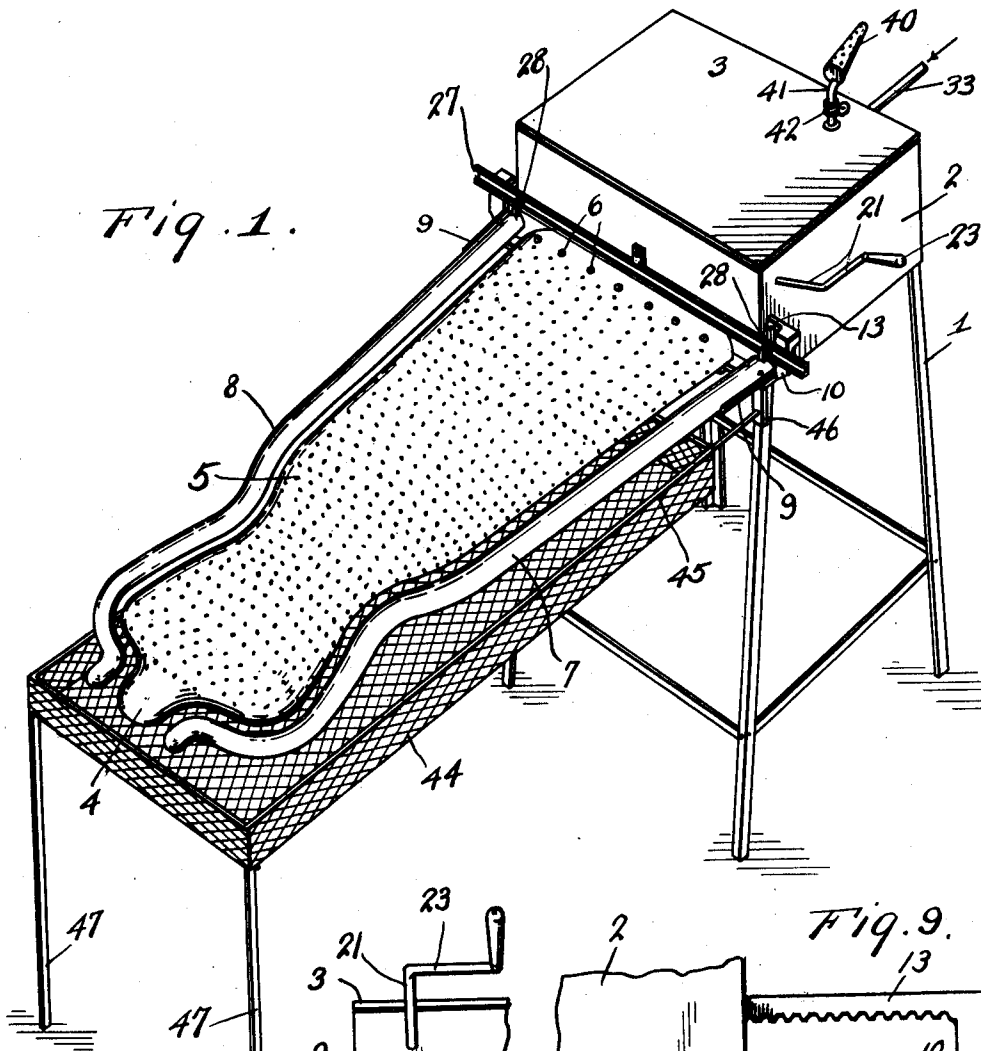


Fig. 9.

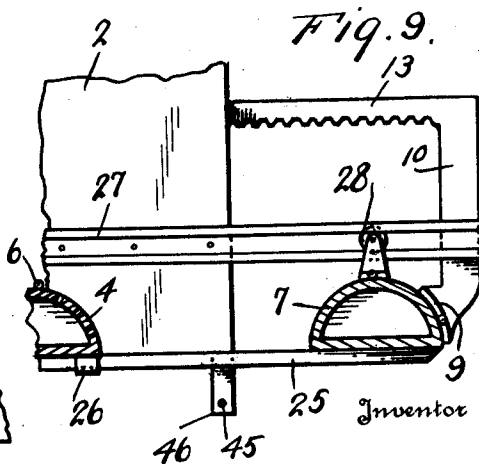
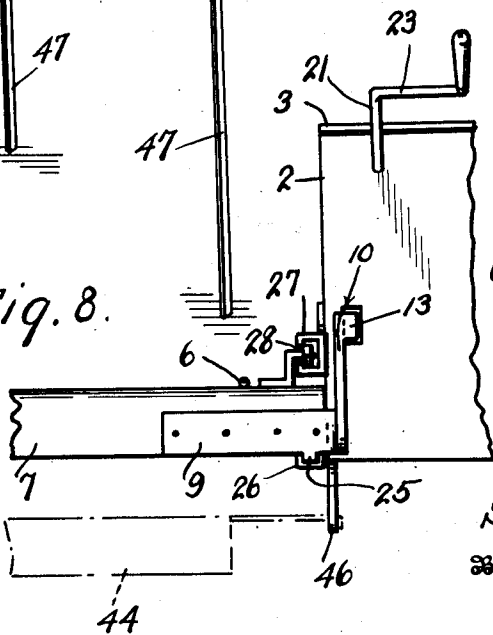


Fig. 8.



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Fig. 2.

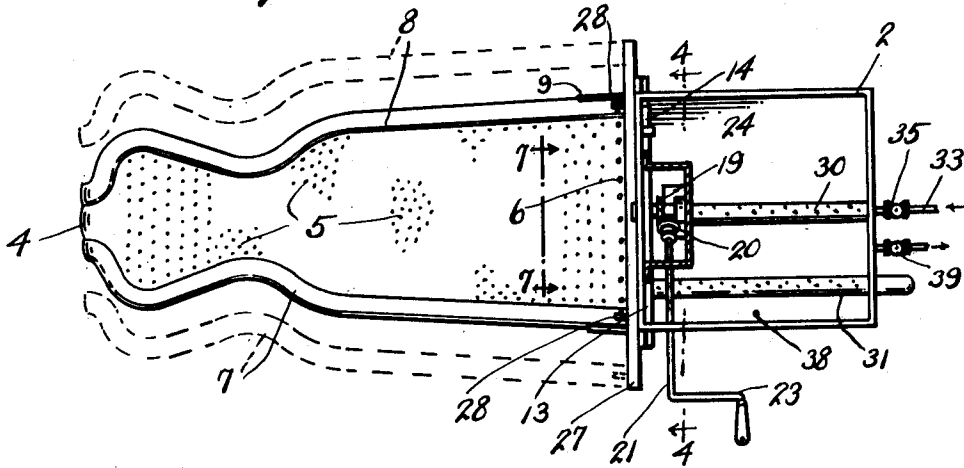


Fig. 3.

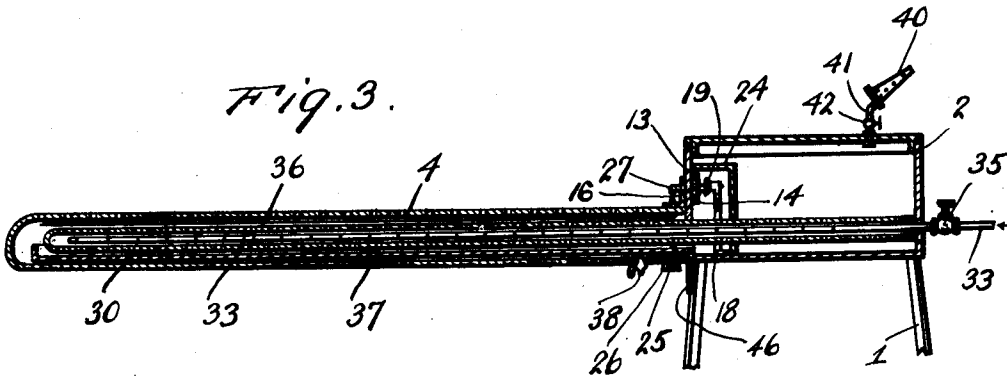


Fig. 6.

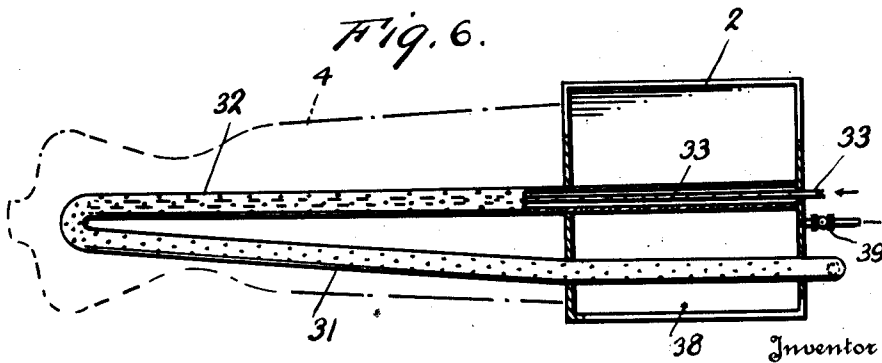
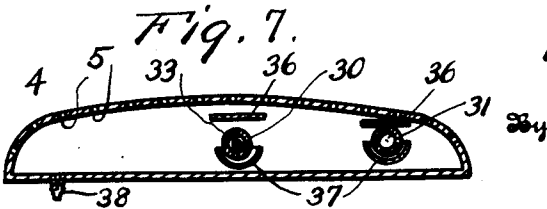


Fig. 7.



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Fig. 4.

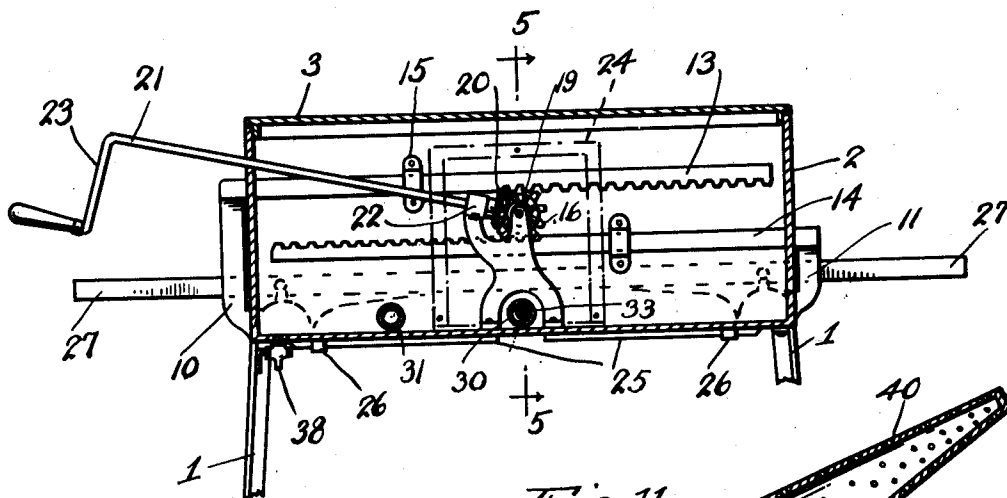


Fig. 11.

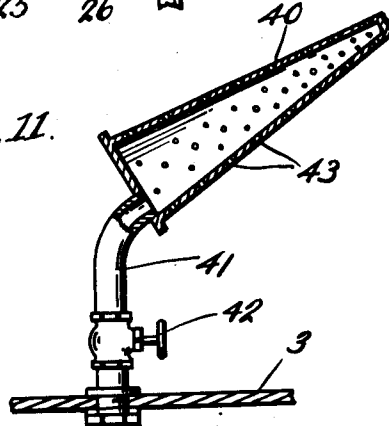


Fig. 5.

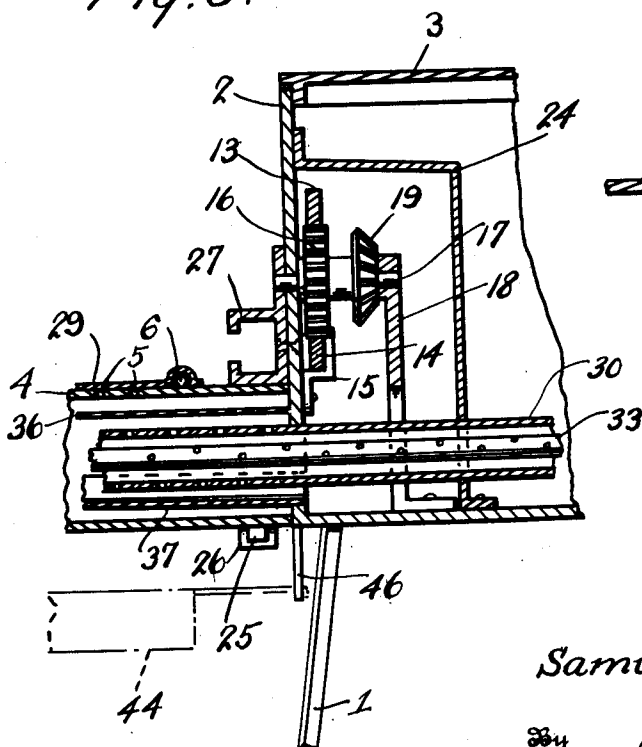
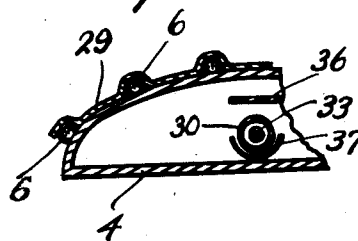


Fig. 10.



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UNITED STATES PATENT OFFICE

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GARMENT STEAMING AND STRETCHING DEVICE

Application filed October 16, 1929. Serial No. 400,004.

The present invention relates to improvements in apparel apparatus and has reference more particularly to a device for steaming and stretching garments of various kinds over an adjustable form.

One of the important objects of the present invention is to provide a device that includes a hollow form simulating the figure of a woman, laterally movable wings being positioned at the opposite sides of the form whereby the garment placed over the form and the wings may be stretched to prevent shrinkage during the steaming of the garment.

A further and important object is to provide a garment steaming and stretching device of the above mentioned character wherein means is provided for effecting the simultaneous operation of the movable wings inwardly or away from the stationary form so that the device can accommodate garments of various sizes.

A further object is to provide a structure of the above mentioned character wherein the hollow form is provided with steam emitting apertures in the top thereof, a perforated steam pipe being arranged longitudinally within the hollow form, there being also arranged within the hollow form, a trough or gutter to catch the condensation so that only dry steam will be discharged through the apertures for contact with the garment positioned over the form.

A still further object is to provide a garment steaming and stretching device wherein a basket is suspended below the form for the purpose of preventing the garment undergoing treatment on the apparatus from touching the floor or otherwise becoming soiled.

A further and important object of the present invention is to provide a garment steaming and stretching device that will at all times be positive and efficient in its operation, as well as simple and inexpensive in its manufacture.

Other objects of the invention will become apparent as the description of the invention proceeds when taken into consideration with the accompanying drawings.

In the accompanying drawings, forming a part of this specification, and in which like numerals indicate like parts throughout the same,

Figure 1 is a perspective view of the garment steaming and stretching device embodying my invention, the laterally movable side wings being shown in a slightly outwardly moved position with respect to the stationary hollow form;

Figure 2 represents a plan view of the device, the top of the casing being removed with parts of a gear housing shown in section;

Figure 3 is a longitudinal sectional view;

Figure 4 is a sectional view taken approximately on the line 4—4 of Figure 2, looking in the direction of the arrows for more clearly disclosing the actuating mechanism for the laterally movable side wings;

Figure 5 is a vertical sectional view taken approximately on the line 5—5 of Figure 4, looking in the direction of the arrows;

Figure 6 is a detail of the steam pipes showing their relationship with the casing and the hollow form;

Figure 7 is a transverse section taken approximately on the line 7—7 of Figure 2;

Figure 8 is a detail elevational view of the guide means for the laterally movable side wings, a portion of one of the wings being shown along with the adjacent portion of the casing;

Figure 9 is an enlarged detail showing one of the movable wings and the rack carried thereby, and also disclosing the guide track and roller;

Figure 10 is a detail sectional view through the hollow form showing the removable cloth covering that is detachably secured over the top of the form by conventional snap button closures; and

Figure 11 is a detail sectional view through the sleeve steaming device.

In the drawings, wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates a supporting frame on the top of which is arranged a rectangular shaped casing 2 the top of which is open. A removable closure 3 is provided for the open top of this casing.

Extending horizontally from the front side of the lower portion of the casing 2 is the hollow form 4 which is shaped to simulate the figure of a woman and more particularly the form that configures to the shape of the bust and torso of a person. The hollow form 4 is constructed of any suitable metal and the top thereof is provided throughout its area with a series of steam emitting apertures 5. As is more clearly disclosed in Figure 7 of the drawings, the bottom of the hollow form is flat. A series of snap heads 6 are arranged across the top of the inner end portion of the hollow form 4 and the purpose thereof will be hereinafter and more fully described.

Forming a salient feature of the present invention and adapted for co-operation with the stationary hollow form 4 are the side wings 7 and 8 respectively, that are arranged at the opposite sides of the form 4. Each wing is so shaped as to conform to the configuration of the sides of the hollow form and the mounting and means for actuating the movable side wings will be presently described in detail. The side wings constitute stretcher arms for stretching the garment that is placed over the form and either one or both of said wings may be employed for co-operation with the form in stretching a garment. Attached to the outer side of the inner end portion of each movable wing or stretcher arm is a bracket 9, the rear end of which terminates in the upstanding arm 10. Upon referring to Figure 4 of the drawings, it will be observed that the arm that is associated with the wing 7 extends upwardly for a greater height than the arm that is carried by the inner end of the opposite side wing 8, the shorter upstanding arm being denoted by the numeral 11. Opposed parallel spaced rack bars 13 and 14 are connected at their outer ends to the upper ends of the arms 10 and 11 respectively, said rack bars being arranged for sliding movement through the respective ends of the casing 2. Suitable guide means such as is shown at 15 is secured to the inner face of the front side of the casing for the sliding rack bars 13 and 14.

Co-operating with the teeth of the opposed rack bars 13 and 14 is the pinion 16 that is secured on a shaft 17, the forward end of said shaft being journaled for rotation through an opening formed in the front side of the casing while the rear end of this shaft is journaled in a suitable bearing arranged on an upstanding bracket 18.

A bevelled gear 19 is also secured on the shaft 17 for rotation therewith and meshing with the bevelled gear 19 is the bevel pinion 20 carried by the inner end of an operating shaft 21 that is journaled for rotation through a bearing 22 arranged on an offset portion of the bracket 18, the outer end of the operating shaft 21 projecting through one

end of the casing and terminating in an actuating crank 23.

This construction provides means whereby the rack bars 13 and 14 will be simultaneously operated to move in opposite directions whereby to actuate the laterally movable side wings 7 and 8 inwardly or outwardly with respect to the stationary hollow form 4. A gear housing 24 encloses the shaft 17 and the adjacent portions of the rack bars as well as the supporting bracket 18, it being understood, of course, that the opposed sides of the gear housing 24 are formed with openings to permit the free sliding movement of the rack bars therethrough.

The laterally movable side wings 7 and 8 are further supported and guided by means of the guide bars 25 that are secured at their outer ends to the bottom portions of the inner ends of the respective wings and the inner end portions of these guide bars are operable through guide loops 26 that are carried by the bottom face of the inner end portion of the stationary form 4. This detail is more clearly disclosed in Figure 9 of the drawings.

Additional guide means are further provided for the movable wings 7 and 8, the same including a channelled track 27 that is secured across the front face of the casing 2 above the hollow form 4, the ends of the guide track projecting beyond the respective ends of the casing and operable within the channelled track are the rollers 28 carried by the inner end portions of the respective laterally movable wings. Snap buttons may also be arranged on the inner end portions of the wings 7 and 8 so that the cloth covering 29 that covers the hollow form 4 may also be attached to the inner end portions of the wings 7 and 8, it being understood, of course, that the cloth carries suitable pocket members to receive the snap heads or buttons. In Figure 10 of the drawings, there is clearly shown the relation of the cloth covering with respect to the hollow form and the closure fastening means between the cover and the top of the hollow form.

The invention further comprehends the provision of means for delivering or supplying steam to the hollow form 4 and to this end, an outer pipe 30 extends longitudinally through the casing and into the hollow form 4, the outer end portion of the pipe 30 being bent back upon itself and directed rearwardly through the hollow form and the front and rear sides of the casing 2. The returned bend of the pipe is indicated at 31. The outer pipe 30 is formed with steam openings 32 as clearly shown in Figure 6. Arranged within the pipe 30 is the steam tube 33, the forward end thereof terminating adjacent the juncture of the forwardly extending pipe 30 with the rearwardly extending pipe 31 and this tube 33 is also formed with

steam outlet openings that are arranged in staggered relation with respect to the steam openings 32 formed in the pipe 30. Steam may be supplied to the rear end portion of this tube 33 from any suitable source and a control valve 35 is associated with the inlet end of the steam tube 33.

Arranged directly above the pipes 30 and 31 for disposition within the hollow form 4 are the deflector members 36. This will cause only dry steam to be discharged upwardly through the openings 5 in the top of the hollow form 4. Disposed beneath the pipes 30 and 31 for disposition within the hollow form 4 are the troughs or gutters 37 which collect the condensation. A drain valve or petcock 38 depends from the bottom of the inner end portion of the hollow form 4 while the rear end of the pipe 31 is closed and a drain for the water that may collect in the casing 2 is shown at 39.

A sleeve steaming member in the form of a conical sleeve 40 is supported at an angle on the upper end of a steam pipe 41 that extends upwardly through the removable cover 3, a regulating valve 42 being associated with the pipe 41 and it will be observed that upon referring to Figure 11 that the pipe 41 extends into the closed larger end of the conical member 40 adjacent one side thereof and this conical member is formed with a series of steam discharging apertures 43. By arranging the pipe 41 in the manner as shown in Figure 11, any condensation that will collect within the conical member 40 will be caused to be discharged therefrom and not collect therein.

Also forming a salient part of the present invention is the wire mesh basket 44 that is adapted to be disposed beneath the hollow form 4 and the wings 7 and 8 for the purpose of protecting the garment from touching the floor or otherwise becoming soiled while undergoing treatment on the machine. The basket may be suspended from a suitable frame 45 that is secured at its rear end to a suitable depending bracket 46 while hinged legs 47 support the forward end of the basket.

In the operation of my improved garment steaming and stretching device, a lady's garment is positioned over the hollow form and also over one or both of the laterally movable side wings 7 and 8. The operator then actuates the crank 23 whereby to move the side wings outwardly to effect the stretching of the garment and at the same time, steam is supplied to the garment through the perforated steam pipes and the perforations in the hollow form 4. The garment positioned over the form will be thoroughly steamed for the cleaning thereof and furthermore, the form will render the garment in correct shape without any danger of the same shrinking. The cloth covering 29 may be

placed over the perforated top of the hollow form 4 whenever it is desired to use the same and the cover can be readily and easily attached or detached by reason of the provision of the snap fasteners. Furthermore, the provision of the deflectors will absolutely prevent any moisture from being discharged through the openings 5 in the top of the hollow form so that dry steam will be discharged through said openings for contact with the garment positioned over the form. The sleeves of the garment can also be steamed by simply placing the same over the conical shaped member 40 and opening the valve 42.

It will thus be seen from the foregoing description, that I have provided a garment steaming and stretching device that can be readily and easily set up for use and the adjustment of the side wings can be accomplished with ease and in a simple and efficient manner. Furthermore, a structure of this kind will be strong and durable and at all times positive and efficient in carrying out the purposes for which it is designed.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claims.

Having thus described my invention, what I claim as new is:

1. In a device of the class described, a support, a hollow form mounted thereon and provided with steam emitting passages, means for supplying steam to the interior of the hollow form, garment stretching wings arranged at the opposite sides of the form and adapted for movement toward or away from said form, means for actuating the movable wings simultaneously and guide means for said movable wings, said guide means including a track arranged on the support, and rollers carried by the inner ends of the wings for movement along said track.

2. In a device of the class described, a support, a hollow form mounted thereon and provided with steam emitting passages, means for supplying steam to the interior of the hollow form, garment stretching wings arranged at the opposite sides of the form and adapted for movement toward or away from said form, means for actuating the movable wings simultaneously, said means including opposed rack bars carried by the inner ends of the wings, a pinion co-operating with the opposed rack bar, a shaft carrying said pinion, and means for operating said shaft from a remote point and guide means for the movable wings, said guide means including a track arranged on the support, and rollers carried by the inner ends of the wings for movement along said track.

3. A device of the class described comprising a support, a horizontally disposed hollow form carried by the support and being provided with steam emitting passages, a
5 steam pipe extending longitudinally within the hollow form and provided with a series of steam outlet openings, a steam supply tube disposed within said pipe and formed with openings that are arranged in staggered relation with respect to the openings in the
10 steam pipe.

4. A device of the class described comprising a support, a horizontally disposed hollow form carried by the support and being
15 provided with steam emitting passages, a steam pipe extending longitudinally within the hollow form and provided with a series of steam outlet openings, a steam supply tube disposed within said pipe and formed with
20 openings that are arranged in staggered relation with respect to the openings in the steam pipe, a deflector arranged longitudinally above the steam pipe.

5. A device of the class described comprising a support, a horizontally disposed hollow form carried by the support and being
25 provided with steam emitting passages, a steam pipe extending longitudinally within the hollow form and provided with a series of steam outlet openings, a steam supply tube disposed within said pipe and formed with openings that are arranged in staggered relation with respect to the openings in the
30 steam pipe, a deflector arranged longitudinally above the steam pipe, and a condensation collecting trough arranged beneath the steam pipe.

6. In a garment stretcher, a support, a form mounted thereon, garment stretching
40 wings arranged at opposite sides of the form and adapted for movement toward or away from said form, means for actuating the movable wings simultaneously, and guide means for the movable wings including a
45 track arranged on the support, and rollers carried by the wings for movement along the track.

In testimony whereof I affix my signature.
SAMUEL SIMON.

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