Jan. 26, 1954 E. PETRICH 2,667,291

PRESSING BUST

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Fig. 1

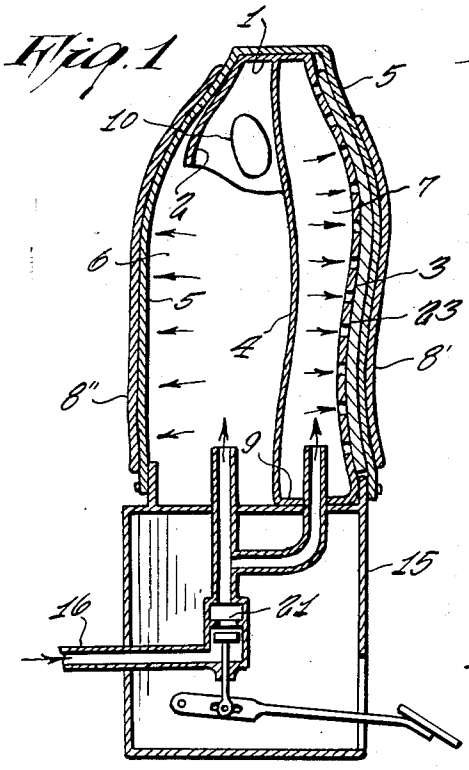


Fig. 2

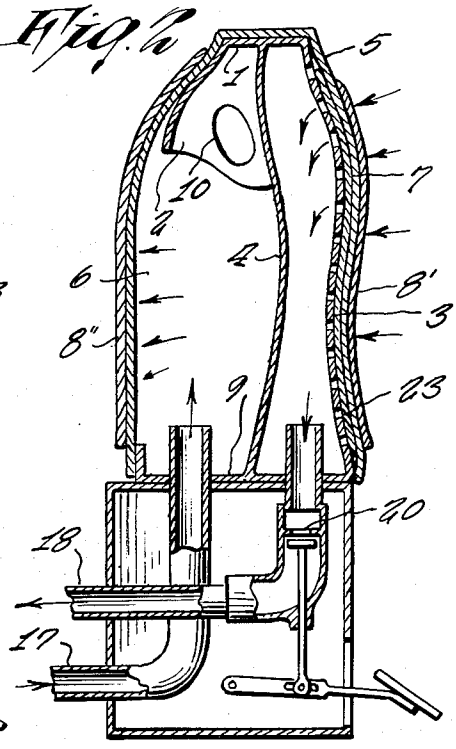
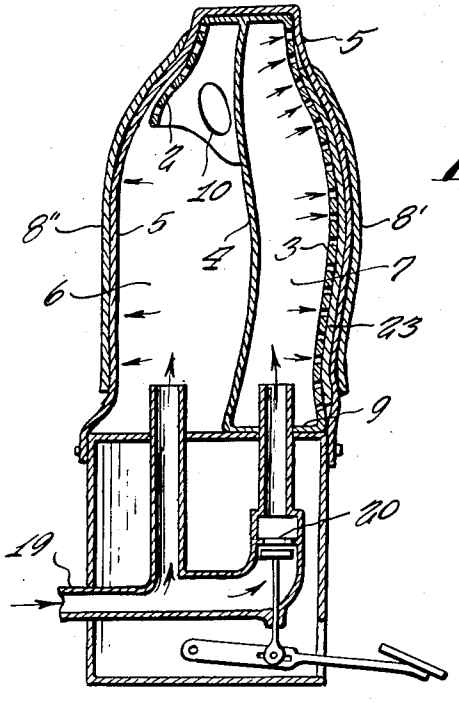


Fig. 3



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Fig. 4

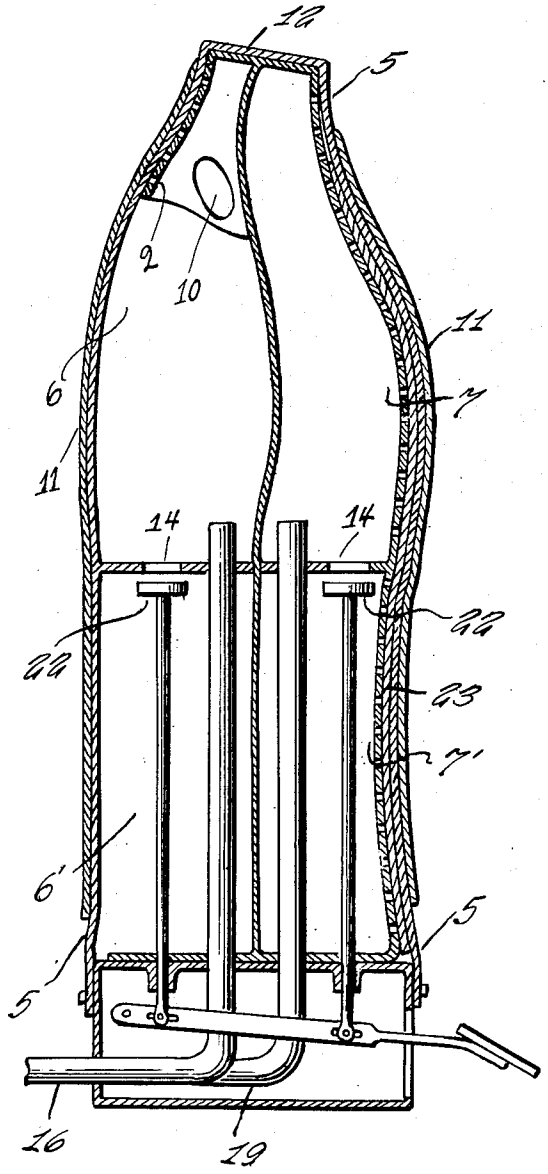
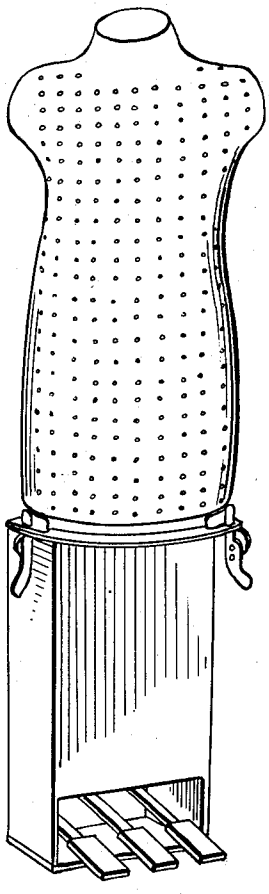


Fig. 5



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PRESSING BUST

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8 Claims. (Cl. 223—70)

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This invention relates to a device for the steaming and pressing of articles of clothing, more particularly jackets and coats and has special reference to a device of the class in which the article of clothing is steamed from inside while being fitted on a lay figure or bust.

It is an object of the present invention to provide a device of the type referred to which permits, simultaneously with the steaming treatment, a fashioning treatment similar to that obtained by pressing.

A special object of the invention is to provide means permitting different and changing treatments of the front and back parts of the article of clothing.

Another object of the invention is to provide a device permitting even a widening treatment.

With these and further objects in view I provide a device similar to a lay figure or bust but without back part, whose solid front part is perforated or constructed like a sieve or screen; the front part is completed to form a closed chamber, by means of a transverse, substantially vertical partition wall; the frame of the bust or figure is surrounded by an envelope or covering which is closed on all sides and consists, for instance, of a textile fabric, thus forming two chambers within the envelope, said chambers being separated by the partition wall and permitting the production of different and changing pressure conditions within the two chambers.

Other and further objects, features and advantages of the invention will be pointed out hereinafter and appear in the appended claims forming part of the application.

In the accompanying drawings several now preferred embodiments of the invention are shown by way of illustration and not by way of limitation.

Fig. 1 is a section through a bust device having the invention applied thereto, in the phase of blowing in steam,

Fig. 2 is a section similar to Fig. 1, in the phase of blowing air into the back chamber and sucking off air from the front or breast chamber,

Fig. 3 is a section similar to Figs. 1 and 2, in the phase of blowing air through both chambers, and

Fig. 4 is a section through a steaming and pressing device similar to that shown in Figs. 1 to 3, but adapted for the alternative treatment of jackets and coats.

Fig. 5 is a view in perspective of a pressing bust according to the invention.

Referring now to the drawing in greater detail, it will be seen that the pressing figure consists of a bust whose perforated back part 2 extends only to the center of the arm-holes 10 while its front part 3 is formed by a perforated

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wall adapted to the shape of the human body. This wall laterally extends up to a point short of the arm-holes 10 where it is closed by a partition wall 4 which thus is disposed approximately in the middle region of the bust. A bag-shaped covering or slip 5 of one or more layers of textile material, e. g., of grey cotton cloth is drawn over the bust, and closed in the lower part of the bust. Thus two chambers 6 and 7 are formed, the back chamber 6 being non-rigid to the outside while the chamber 7 is rigid. A small extension 2 may be provided in the upper part of the back of the bust so as to provide a shaped support for the shoulder portion of the article of clothing 8 to be hung up thereon. This supporting member 2 may also be perforated, as indicated in Figs. 3 and 4.

The bust 1 is secured on a stand 15 so as to be easily detachable for interchange with busts or figures of another size to be mounted thereon. It will be understood that a wide variety of busts of different size and shape may be provided to fit the various types of jackets, sack coats, lounge jackets and coats for ladies or gentlemen. Thus it is possible to use the device according to the invention, for instance, to press articles of clothing into another shape by way of reshaping.

Figs. 1 to 3 show busts for jackets, sack coats etc. while the bust according to Fig. 4 is adapted for the alternative treatment of jackets or coats. In the latter case, a horizontal partition wall 13 is provided within the bust 12, whose height is adapted so that with a sack coat applied it will be approximately flush with the lower edge of the same. In the front part 3 of the bust the perforated wall is lined with relatively thick felt material 23 which is covered by the grey cotton cloth covering 5. This soft intermediate layer 23 serves to provide a soft support for the front part of the article of clothing in the phase of pressing on the same.

The operation of the device will now be described as follows, with reference to Fig. 1 of the drawing:

In the first phase of the treatment steam 16 will be blown into the two chambers 6 and 7, under control of a pedal-operated valve 21. According to an important feature of the invention the front part 8' of the article of clothing will be exposed to a lower steam pressure than the back part 8''. Although the steam 16 enters into both chambers 6 and 7 with equal pressure, the specific pressure per unit area acting upon the front part 8' will be smaller than that acting upon the back part 8'', since the perforated wall 3 together with the felt lining produces a material resistance. As a result, the back part 8'' will be blown up intensively, while the front part 8' is only steamed without being distorted, whereby the two halves of the front part in the

reach of the row of buttons or of the stitched seam practically are not subjected to any displacement. This is important since jackets etc. treated in accordance with the invention require only a very slight subsequent smoothing treatment in the button region. Owing to the overpressure in the chamber 6 the front part 8' of the article of clothing 8 is gently, yet firmly pressed onto the shape of the bust 1. Thus the front part of the article of clothing is given the accurate shape of the bust. Since a thorough steaming takes place at the same time, the shape of the breast defined by the bust can be worked out quickly and permanently by beating with a brush.

On disconnection of the steam supply, hot air 17 is blown into chamber 6, while the air is sucked from the chamber 7 through the suction channel 18, as shown in Fig. 2. Thus the moisture forced into the article of clothing by the steaming is driven off or expelled. Since the front part 8' of the article of clothing is not lifted off from the bust 1 but continues to cling to the bust portion 3 under action of the vacuum, the shape imparted to it during the steaming process will not undergo any change. Therefore, the shape of the breast desired and worked into the article of clothing is preserved. The article of clothing will stiffen in the shape given to it on drying. The edges will become flat as in case of smoothing by a flatiron.

The "squeezed spots" naturally produced in the front part 8' during the pressing operation at the spots where thicker portions, such as, seams, pockets, lining or the like cause an increased specific pressure, may be removed by blowing compressed air into the chamber 7 for a short period of time at the end of the blowing process instead of the preceding vacuum, as shown in Fig. 3. For better illustration a special air supply pipe 19 has been indicated in Fig. 3. It will be understood that this switching operation can also be achieved by the provision of a suitable valve control in pipe 18, Fig. 2. The vacuum or the compressed air in the chamber 7 can be controlled by the foot-operated control valve 20. It is preferred to expose the garment to the said short air blowing treatment as the cloth of the garment or the material of the intermediate felt is not yet completely dried but still contains a small amount of moisture.

The large bust 12 of Fig. 4 is operated in the same manner as the bust of Figs. 1–3. Where a coat or overcoat 11 is to be treated, the foot-operated valves 22 are opened to supply steam or air through the ducts 16—19 into the upper chambers 6 and 7 and into the lower chambers 6' and 7'. On the other hand, where a jacket or other shorter garment is treated on this bust 12, the openings 14 are closed, whereby steam and air will act in the upper chambers 6 and 7 only.

It will be understood that manual treatment of the back part 8'' of the article of clothing will be dispensable both during the working phases on the smoothing figure and afterwards. The article of clothing is taken from the bust in a finished condition, except that in some instances, depending on the type of cloth and the fashion, the collar, the borders and the outer folds of the sleeves may have to be slightly re-smoothed on a clothing press.

It will thus be seen that my novel device is a shaping and smoothing apparatus rather than a mere steaming device.

The vertical partition wall together with the perforated front wall may simultaneously form the carrier frame of the bust. Advantageously sack-shaped arm parts are joined to the arm holes, thus forming spaces whose pressure conditions are adapted to the pressure conditions of the pressure chamber formed by the back part and the partition wall.

The proportions of the total cross section of all perforations of the front wall of the bust and the total surface thereof are adapted in such a way, in relation to the total surface of the back part of the bust, that the specific pressure upon the back part is sufficiently higher than the specific pressure acting upon the front part so that while the front part is sufficiently damped, spreading apart of the two halves of the front part is avoided, which two halves are buttoned and/or stitched together, especially in the lower part.

Owing to the fact that the back part of the article of clothing is tensioned in a rearward direction it will not be necessary to provide a separate bust for each size of sack coat or costume, but a common bust may be provided for two or three sizes, since the intermediate sizes will fit firmly on the front part of the bust owing to the said tensioning effect.

The bust is secured on its stand so as to be easily detachable.

While the invention has been described in detail with respect to certain now preferred examples and embodiments of the invention it will be understood by those skilled in the art after understanding the invention that various changes and modifications may be made without departing from the spirit and scope of the invention and it is intended, therefore, to cover all such changes and modifications in the appended claims.

What is claimed is:

1. A garment finishing apparatus of the character described, comprising a base, a hollow garment supporting form mounted upon said base and including a rigid front part having arm holes and being shaped in accordance with the shape of the garment to be finished and having openings for the passage of gas, a rigid rearward part extending from the top down to the arm holes only, a partition wall disposed in the middle region of the form, between the front and rearward parts thereof and substantially parallel to the axis of the form, and a flexible covering which is permeable to gas and forms an all-round cover tightly connected to the base and defining a front chamber between the partition wall and said front part and a separate back chamber between the partition wall and the rearward portion of the covering, gas pipes connected to said chamber and valve means in said gas pipes for simultaneously producing in said separate chambers different and changing gas pressures which are independent of each other.

2. A garment finishing apparatus of the character described, comprising a base, a hollow garment supporting form interchangeably mounted upon said base and including a rigid front part having arm holes and being shaped in accordance with the shape of the garment to be finished and having openings for the passage of gas, a rigid rearward part extending from the top down to the arm holes only and having openings for the passage of gas, a partition wall disposed in the middle region of the form, be-

tween the front and rearward parts thereof and substantially parallel to the axis of the form, and a flexible covering which is permeable to gas and forms an allround cover tightly connected to the base and defining a front chamber between the partition wall and said front part and a separate back chamber between the partition wall and the rearward portion of the covering, a pipe connected to said front chamber for selectively feeding steam or air thereto and alternatively for sucking air therefrom, and another pipe connected to said back chamber for selectively feeding steam or air thereto independently of the front chamber.

3. A garment finishing apparatus of the character described, comprising a base, a hollow garment supporting form mounted upon said base and including a rigid front part having arm holes and being shaped in accordance with the shape of the garment to be finished and having openings for the passage of gas, a rigid rearward part extending from the top down to the arm holes only, a partition wall disposed in the middle region of the form, between the front and rearward parts thereof and substantially parallel to the axis of the form, and a flexible covering which is permeable to gas and forms an allround cover tightly connected to the base and defining a front chamber between the partition wall and said front part and a separate back chamber between the partition wall and the rearward portion of the covering, said front part being perforated to such an extent only that its resistance to the passage of gas is substantially higher than the resistance to the passage of gas offered by the back part of the flexible covering, gas pipes connected to said chambers and valve means in said gas pipes for simultaneously producing in said separate chambers different and changing gas atmospheres which are independent of each other.

4. A garment finishing apparatus of the character described, comprising a base, a hollow garment supporting form mounted upon said base and including a rigid front part having arm holes and being shaped in accordance with the shape of the garment to be finished and having openings for the passage of gas, a rigid rearward part extending from the top down to the arm holes only, a partition wall disposed substantially parallel to the axis and in the middle region of the form, in front of the armholes thereof, and a flexible covering which is permeable to gas and forms an allround cover tightly connected to the base and defining a front chamber between the partition wall and said front part and a separate back chamber between the partition wall and the rearward portion of the covering, gas pipes connected to said chamber and valve means in said gas pipes for simultaneously producing in said separate chambers different and changing gas atmospheres which are independent of each other.

5. A garment finishing apparatus of the character described, comprising a base, a hollow garment supporting form mounted upon said base, said form having a height sufficient for supporting overcoats and including a rigid front part having arm holes and being shaped in accordance with the shape of the garment to be finished and having openings for the passage of gas, a rigid rearward part extending from the top down to the arm holes only, a partition wall disposed in the middle region of the form, between the front and rearward parts thereof and

substantially parallel to the axis of the form, a transverse partition wall arranged approximately halfway between the top and base ends of the form and including ports and means for selectively opening and closing said ports to adapt the apparatus alternatively for the finishing of jackets and suitcoats or overcoats, and a flexible covering which is permeable to gas and forms an allround cover tightly connected to the base and defining a front chamber between the partition wall and said front part and a separate back chamber between the partition wall and the rearward portion of the covering, gas pipes connected to said chamber and valve means in said gas pipes for simultaneously producing in said separate chambers different and changing gas pressures which are independent of each other.

6. A garment finishing apparatus of the character described, comprising a base, a hollow garment supporting form mounted upon said base and including a rigid front part having arm holes and being shaped in accordance with the shape of the garment to be finished and having openings for the passage of gas, a rigid rearward part extending from the top down to the arm holes only and having openings for the passage of gas, a partition wall disposed in the middle region of the form, between the front and rearward parts thereof and substantially parallel to the axis of the form, and a flexible covering which is permeable to gas and forms an allround cover tightly connected to the base and defining a front chamber between the partition wall and said front part and a separate back chamber between the partition wall and the rearward portion of the covering, a pipe connected to said front chamber for selectively feeding steam or air thereto and alternatively for sucking air therefrom, a valve for controlling the intensity of the feeding and sucking flow, and another pipe connected to said back chamber for selectively feeding steam or air to said back chamber, independently of the front chamber.

7. A method of finishing a garment, comprising the steps of putting the garment over the garment supporting form of a garment finishing apparatus as claimed in claim 1, and feeding hot steam into the front and back chambers in such a way that the back part of the garment is acted upon by a higher pressure than the front part thereof, then disconnecting the hot steam supply, feeding hot compressed air into the back chamber, and sucking air from the front chamber.

8. A method of finishing a garment, comprising the steps of putting the garment over the garment supporting form of a garment finishing apparatus as claimed in claim 1, and feeding hot steam into the front and back chambers in such a way that the back part of the garment is acted upon by a higher pressure than the front part thereof, then disconnecting the hot steam supply, feeding hot compressed air into the back chamber, sucking air from the front chamber, and finally blowing compressed air into both chambers.

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