May 18, 1943 C. PUNGOR 2,319,434

DRESS STEAMER DEVICE

Filed Feb. 23, 1942

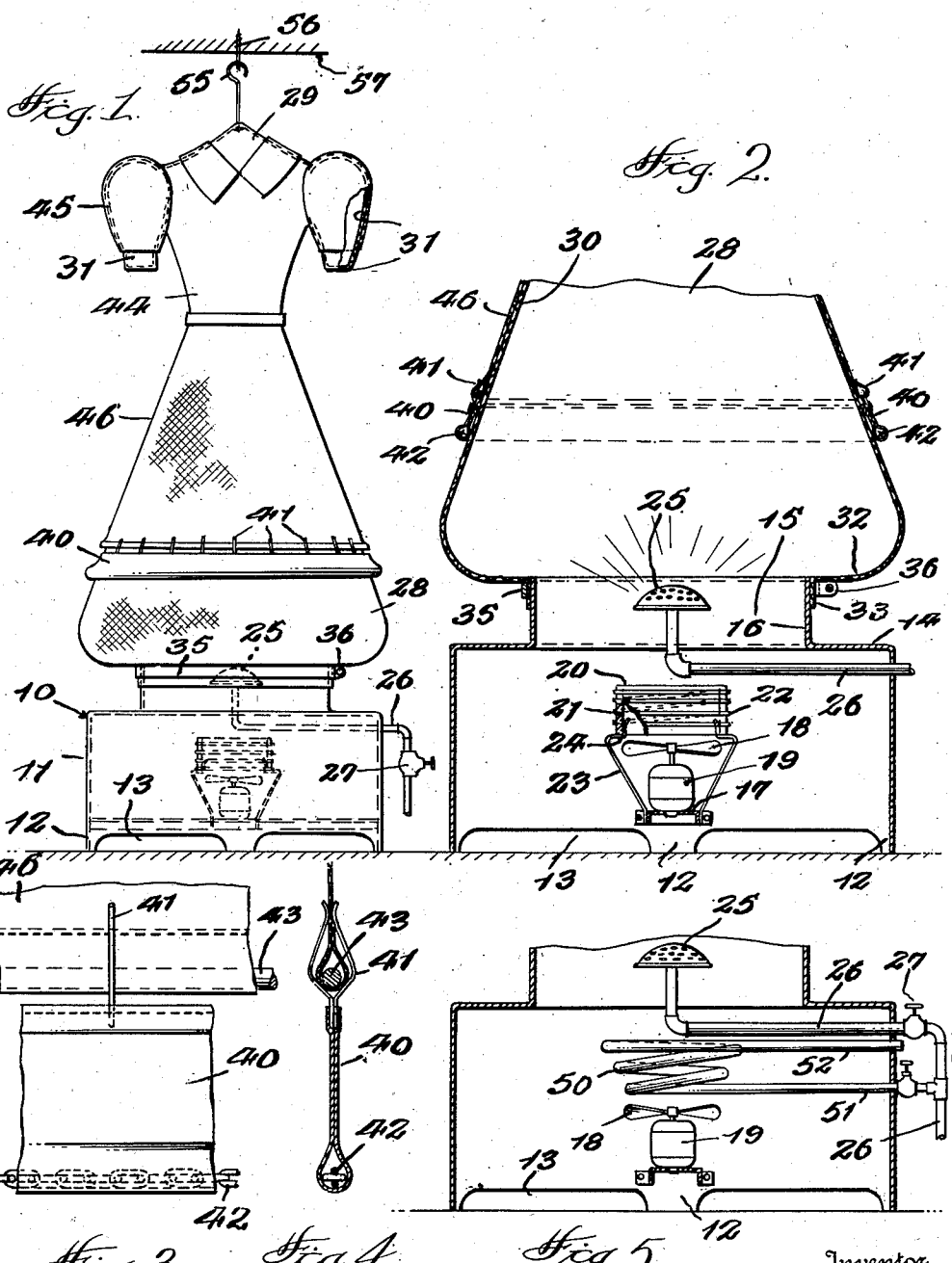

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

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Patented May 18, 1943

2,319,434

UNITED STATES PATENT OFFICE

2,319,434

DRESS STEAMER DEVICE

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Application February 23, 1942, Serial No. 432,073

2 Claims. (Cl. 223—70)

The invention relates to methods of refinishing garments, in lieu of pressing, and is an improvement in the means for holding the dress in proper form while steam is applied thereto, and also an improvement in the means for supplying steam to the dress. The invention will be understood by reference to my prior patent, No. 2,213,288, issued September 3, 1940, for Steamer mechanism. The present invention aims to present means of an extremely simple character for distending a dress so that the body and sleeve portions, and skirt portions, will all be held slightly set, or filled out, without stretching, while steam is directed through the goods of the dress to give it a set in its condition, eliminating wrinkles and creases, and giving the dress an appearance of newness. An important object of the invention is to present a device of this nature which may be operated by persons without expert training, and which will give improved results in the finishing of garments, as well as enabling very rapid treatment of garments with a minimum of expense for drying steam and effecting the drying of the garments.

A highly important aim of the invention is to provide means for the purposes indicated which will be extremely low in cost, and which will occupy a minimum of space, and which will be extremely simple to operate and maintain.

Additional objects, advantages and features of invention reside in the construction, arrangement and combination of parts involved in the embodiment of the invention, as will be more readily understood from the following description and accompanying drawing, wherein

Figure 1 is an elevational view of my apparatus, with a dress applied thereto.

Figure 2 is a vertical sectional view thereof, the upper portion being omitted.

Figure 3 is a detail of the skirt holding means.

Figure 4 is a cross section of the skirt holding means.

Figure 5 is a view of the base unit including a modified heating means.

Referring more particularly to the drawing, there is shown a base chamber **10**, which may be formed of sheet metal, substantially circular in form, having an outer cylindrical wall **11** formed with foot-portions **12** at intervals whereby slots **13** are formed adapted to admit air into the base chamber. A top head **14** is joined to the wall **11**, and extended horizontally inward to a throat opening **15**, formed by a cylindrical wall portion **16** of a diameter much less than that of the wall **11**, but extending upwardly only a short distance. On a suitable cross arm **17** in the lowermost part of the chamber **10** a fan **18** is mounted, driven by a motor **19** arranged on a vertical axis concentric with the throat opening **15**, an electrical heater coil or other suitable unit **20** being mounted over the fan **18**, in the present instance the unit comprising a cylindrical annulus **21** of insulating material, around which a helix **22** of resistant wire is wound. The unit is supported by sprocket arms **23** extended upwardly from the cross arms or bars **17**, the bracket arms **23** being divergent from the axis of the motor, and at their upper end being turned inwardly, forming rests **24**, and thence upwardly to fit snugly within the insulator **21**, whereby the latter is maintained in proper centered position over the fan.

A steam spreading jet head or nozzle **25** is mounted concentrically within the throat opening **15**, being so shaped as to direct steam passing therethrough in all directions upwardly within a proper zone, this nozzle being mounted upon the upturned end of a steam supply pipe **26**, which may be led from a suitable boiler or other steam supplying device, not shown. A hand valve **27** may be incorporated in the pipe **26** to control the supply of steam to the nozzle. A balloon dress form **28** is provided, preferably formed of a very closely woven material such as one of the cellulose compounds available on the market, one of which suitable for the purpose is called "Cellanese." With proper weaving, passage of steam and air through such fabric is sufficiently opposed to cause a balloon-like form of the goods to be filled out, substantially as shown in Figure 1.

The balloon form **28** includes an upper body shaped portion **29**, a lower skirt body portion **30**, and sleeve filling elements **31**, which are joined to the upper portion of the body part **29**, with intercommunication, so that the sleeve-shaped members may be filled out, these being closed in all directions except where attached to the body portion **29** of the balloon form. The lower skirt portion is turned inwardly, as at **32**, and thence downwardly a short distance, substantially as indicated at **33**, forming a reduced opening adapted to fit snugly around the throat wall **16**. It may be clamped upon the wall **16** by means of a clamp ring **35**, as shown in Figure 2, and in Figure 1, this ring being of a split type connected at **36** by means of a bolt device, so that it may be released to permit removal of the balloon form when desired.

There is also provided a skirt weighting device, shown in Figures 1, 2, 3, and 4, which consists of a strip of woven fabric **40**, bent in half on a longitudinal line and stitched together at its edges, so as to form a loop in the cross section, this device having a multiplicity of spring clasps **41** fastened in its stitched edges, with clasp arms extended outwardly therefrom and adapted to receive therebetween the hem portion of a garment. Within the loop of this band of fabric, there is laid a chain **42** of a suitable metal and of suitable size to provide the necessary weight for

the functions to be described. There may also be provided a wire or other flexible curved member 43, of sufficient body or thickness to fill out the hem of a garment when inserted therein sufficiently to prevent the clasp arm 41 from pulling off of the garment readily, and also, to fill out the hem of the garment and give it a good form under the effect of the steaming treatment to be applied.

In use, when a dress is to be finished, the balloon device 28 of a size slightly larger than the dress to be treated is used, the balloon device being inserted within the dress, and its arm portions 31 tucked into the arms 45 of the dress, the skirt portion of the dress 46 being extended downwardly around the skirt form 30. The waist band 40 is applied to the hem of the skirt either before or after its mounting upon the balloon form, a band 40 of sufficient length to extend entirely around the hem of the skirt being employed. The device 40 may be an annular form of the particular size desired, or may be a band of more than sufficient length to extend around the garment hem, the surplus length portion being allowed to hang unused or being supported in any suitable manner to avoid excess weight at any one part of the garment hem.

Before application of the waist-band 40 to the skirt 46, an opening may be made into the hem at a seam or otherwise, and through this the member 43 is inserted and pushed through the hem until it passes entirely around the edge of the skirt, the member 43 being preferably circular in cross section. Either before or after placement of the chain 42, the clips 41 are engaged with the lower edge portion of the skirt, by forcing the hem portion between the arms of the clasp, and adjusting the top at such spacing that a uniform tension is applied to the skirt. The chain 42 may be drawn through the loop of the fabric 40 after attachment to the skirt, if desired, so that the device 40 then lies below the skirt and against the side of the skirt section 30 of the balloon device 28, as shown in Figures 1 and 2.

The dress being properly applied over the balloon device, the valve 27 may be operated to admit a sufficient quantity of steam to inflate the balloon device, filling out the entire body portion and sleeve portions 29 and 31, a small amount of steam passing through the fabric of the balloon device and serving to destroy any set which may have existed in the garment not corresponding to the desired shape afforded by the balloon device, and also pressing out the fibers of the fabric so as to give it a new finish appearance on the surface. After a short treatment with the steam, or before, the fan device 18 may be operated to blow air upwardly through the throat opening 15 and into the balloon device, consisting in keeping the dress from becoming too damp, and effecting a drying of the dress when operation of the fan is continued after cutting off of the steam, which may be done at valve 27. Operation of the heater device 20 to supply heated air within the balloon, will hasten the drying of the dress and the setting thereof in the form of the balloon. Ordinarily, each stage of treatment requires only a few seconds, and the best practice is believed to be an initial treatment with steam alone, followed by a short period of steam treatment accompanied by operation of the fan for a few seconds, and then cutting off the steam and allowing the fan to operate for a shorter period of time.

In the event that the hem of the dress does not permit insertion of a member 43, the clasps 41 may be used without such insertion and will serve to hold the dress properly by careful application and use.

In Figure 5, there is shown an embodiment of the invention in which the need for an electric heater 20 is obviated, by incorporating a steam coil 50 in the base chamber, arranged concentrically over the fan, this coil having a supply connection 51 with the pipe 26 through which steam is supplied through the nozzle 25 of my device, the opposite end of the coil, preferably the upper end, having a vent pipe 52 leading therefrom to any suitable point of discharge.

While I have disclosed my invention in the best embodiment known to me, and with great particularity, it will nevertheless be understood that this is purely exemplary, and that changes in the construction, arrangement and combination of parts, substitution of materials, and substitution of mechanical equivalents may be made without departing from the spirit of the invention, within the scope of the claims which more particularly define the invention, as hereto appended.

In order to support the balloon device previous to its inflation, and to prevent spoiling of a garment thereon when the balloon is deflated, as well as to insure the support of the balloon in proper form, when inflated, I have connected into the upper body portion 29, a hook device 55, which may be engaged with a screw eye or other support device 56, which may be engaged in a ceiling 57 or other support.

I claim:

1. A garment finishing device consisting of a balloon element slightly permeable to steam and air, and having the shape when distended of the interior of the garment to be finished when said garment is filled out, said balloon having an open bottom portion, a base chamber device having a throat opening at its upper part, and having an upwardly extended bounding wall around said opening, adapted to fit within said opening of the balloon, means to secure the opening of the balloon around said wall, means to supply steam under pressure within said throat opening and to direct the steam upwardly into the balloon, means to supply air under pressure through said throat at will, a skirt weighting device consisting of a band of fabric folded on a line to afford a loop-shape in cross section, and having a multiplicity of clasp members attached to the upper part thereof, and a flexible weight device carried within said loop portion.

2. The structure of claim 1, in which said means to direct steam within the balloon consists of a nozzle head, of substantially circular form and centrally bored, a supply pipe connected therewith, and a hand valve for controlling a supply of steam through the pipe, said supply pipe having a branch extended into said base chamber, a pipe coil within the chamber forming a continuation of said branch and having a duct therefrom forming a vent exteriorly of the base chamber, a valve for said branch pipe, and an air propelling means arranged to propel air heated by said coil through said throat opening, for the purposes described.

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