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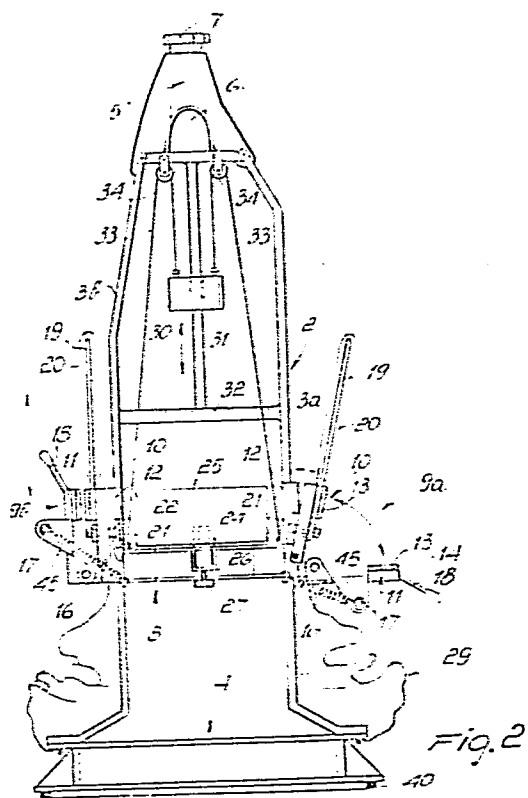
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54 Manikin for steam ironing clothes.

57 The manikin (1) for steam ironing clothes comprises a tower structure (2) having uprights (3a, 3b) connected at one end to a shoulder piece (5) and at the opposite end to a bed (4). A moving frame (8), which can slide along said uprights, has jaw sets (9a, 9b) configured to grip the lower edges of an article of clothing, and a means of securely positioning the moving frame (8) on the uprights (3a, 3b), a pliable apron (20) being also provided which sealingly interconnects the moving frame (8) to the bed (4).



"MANIKIN FOR STEAM IRONING CLOTHES"

This invention relates to a manikin for steam ironing clothes.

As is known, such articles of clothing as jackets, overcoats, etc. can be steam ironed by steaming said
5 clothes, optionally held in a slightly stretched state, so as to remove wrinkles therefrom, and then dried by means of a preferably heated air flow.

For these operations, manikin structures of some kind are usually employed which include a shoulder
10 piece supported above a base or bed and being connected to the latter by a bag which is effective to distribute through an article of clothing being ironed both the steam and drying air.

The article of clothing is caused to adhere
15 closely against the bag by pressure pads to prevent steam or air from escaping through preferential pathways. However, such pads tend to form, at the surfaces contacting the article being ironed, areas of diminished perviousness to the fluid flowing
20 through the article, thus affecting the uniform steaming and drying of the fabric comprising said article of clothing.

Additionally thereto, owing to the compressive action of the pad on the fabric, the ironed article
25 may retain marks where contacted by the pad, to result in an ironed article of inferior quality.

Similar problems are experienced with the article inner surface, because the bag to lining contact impedes a complete removal of wrinkles from

the lining, thus providing unsatisfactory results.

In view of the above problems, it is a primary object of this invention to obviate such prior shortcomings by providing a manikin for steam ironing clothes in general, which enables thorough and homogeneous ironing of articles of clothing without impressing them with marks or traces either on their outer surfaces or inner surfaces.

Another object of the invention is to provide a manikin which may be readily installed in different types of steam ironing machines.

A further object is to provide a manikin which can be readily adjusted to accommodate different size articles of clothing, can avoid excessive stretching thereof, and has a simple and practical construction.

These and other objects are achieved by a manikin for steam ironing clothes in general, which comprises a tower structure having uprights connected at one end to a shoulder piece and at the opposite end to a bed, and is characterised in that it comprises a moving frame carried slidably on said uprights and including jaw sets configured to grip lower edges of an article of clothing, as well as means of securely positioning said moving frame on said uprights, a pliable apron being also provided sealingly interconnecting said moving frame and said bed.

Further features and advantages will be apparent from the following detailed description of a manikin for steam ironing clothes in general, according to the

invention, to be read in conjunction with the accompanying illustrative drawings, where:

Figure 1 is a schematical perspective view of a manikin according to the invention;

5 Figure 2 is a partly sectional, side elevation view of this manikin;

Figure 3 is a top plan view of the manikin of this invention;

Figure 4 is a detail view of the jaw sets; and

10 Figure 5 is a side elevation view, under a different angle from Figure 2, of the inventive manikin with the bed removed.

Making reference to the drawing views, this manikin for steam ironing clothes in general is
15 indicated as a whole at 1 and comprises essentially a tower structure 2 having a pair of opposing uprights 3a,3b which are connected at one end to a base or bed 4 and at the opposite end to a shoulder piece 5.

The shoulder piece, which is substantially of
20 conventional design, is preferably provided with a pair of adjustable supports 6 which can be moved in an orthogonal direction to the plane of the sheet in Figure 2 by operating a handwheel 7 such as to change the width of the supporting area at the shoulder
25 portions of an article of clothing being ironed to fit the size of the article.

In accordance with this invention, the uprights 3a,3b slidably carry a moving frame 8 which includes jaw sets 9a,9b at each of said uprights;
30 each jaw set is configured to grip lower edges of an

article being ironed, and comprises essentially a first jaw element 10 and second jaw element 11, which are both mounted for oscillation with respect to the moving frame, being preferably hingedly connected to a slide 12 of
5 said frame at an area adjacent the uprights.

The jaw elements have gripping surfaces 13 facing each other and disposed on arcuate profile members 14 which are mounted on the jaw elements at the remote end thereof from the hinge connection to the slide.

10 Between the second jaw element and moving frame, elastic clamping means are provided which comprise, of preference, a pair of springs 16 attached with one end to the moving frame, and with the opposite end to a cross-piece 17 carried on brackets 45 of the second
15 jaw element, at the opposite end to the corresponding gripping surface.

Said elastic clamping means exert a clamping action between the jaw elements with the jaw set in its closed position, in that the spring action is
20 applied above the hinge point of the second jaw set on the slide, while holding the jaw elements apart with the jaw set in its open position, because in this case, owing to the extended condition of the brackets, the hinge point locates itself above the corresponding
25 spring. In order to open and close the jaw sets, each of the second jaw elements has preferably a rod or handle 18 attached thereto; means are provided on the first jaw element to prevent steam or air from escaping from the article of clothing during the ironing process,
30 said means comprising preferably a bow 19 supporting

a flexible cloth 20 and acting on the inside of the article at an area overlying the gripping surface.

Also provided on each of the first jaw elements is a means of securely positioning the moving frame, which comprises, in a preferred embodiment thereof, 5 braking pads 21 acting on the uprights and being attached to the corresponding jaw element by means of a threaded tang 22.

Such braking pads are active on the uprights by 10 virtue of the pressure exerted by the springs 16 with the jaw set in its closed position so as to prevent sliding of the moving frame, while they release it for sliding movement when the jaw set is in its open position due to the pad 21 being rotated away from 15 the respective upright.

Substantially coplanar with the jaw sets but preferably arranged orthogonally thereto, slideways 24 are provided on the moving frame 8 and carry each one holding pad 25 slidable thereon.

The slideways to pads coupling is preferably accomplished by means of sliding elements 26 attached to the pads; the 20 elements 26 essentially comprise a sleeve with square cross-section in the embodiment shown and have a locking means 27, such as a lock screw.

The pads comprise essentially an arcuate element covered by portions 28 of a pliable apron 29 which is sealingly connected to both the moving frame and bed so as to prevent steam 25 or air from escaping from under the article being ironed.

In order to facilitate the adjustment and displacement of the moving frame, the latter is balanced along 30 the uprights by means of a counterweight 30 carried slidably

on a rod 31 which is supported centrally between the uprights by a cross-piece 32 at the bottom end, and secured with the top end to the shoulder piece.

5 The counterweight is connected as by means of flexible connectives 33 to the moving frame, and can perform its function by virtue of the flexible connectives being trained around pulleys 34 carried on the shoulder piece.

10 To further prevent losses of steam and air, the shoulder piece has a breast piece 35 mounted thereon which closes the area corresponding to the front of an article of clothing when an article of the types of a jacket or overcoat is placed thereon.

15 On the side of the connection between the bed and machine on which the manikin is to be mounted, a seal ring 40 is preferably provided to create a seal between the manikin and machine, since the manikin would be generally mounted for rotation about an axis substantially coincident with the rod 31 on
20 the machine in order to facilitate fitting of an article to be ironed thereon.

The operation of the inventive manikin may be appreciated from the foregoing description and illustration. In particular, the manikin is dressed
25 with an article to be ironed and the article is buttoned up taking care that the breast piece 35, left on the side corresponding to the inner lining of the article, fills the area corresponding to the article front.

30 On completion of the above article fitting step,

the position of the moving frame 8 is adjusted, which operation would be greatly facilitated by the balanced mount of the frame; said adjustment should set the frame such that the gripping surfaces of the jaw sets
5 can grip the article lower edges.

On completion of the adjustment procedure, the jaw sets are closed, here too taking care that both the bow and cloth 20 are left on the side corresponding to the article lining.

10 On that same side, i.e. inside of the article, should also be kept the holding pads 25; these are left free to slide along the slideways 24 and brought to contact the lining by the pressure exerted by the steam or air introduced into the manikin interior.

15 On clamping the jaw sets closed, the first jaw element is caused to oscillate about its hinge point on the slide, thus bringing the braking pad to contact the uprights, the braking pad being pressed against said uprights by the spring 16.

20 The manikin as a whole, with the possible exclusion of that portion of the uprights where the slides 12 are arranged to run, is preferably subjected to a conventional anti-condensation treatment.

In practicing the invention, the materials used,
25 and the dimensions and contingent shapes, may be any selected ones to meet individual requirements and the state of the art.

CLAIMS

1 1. A manikin for steam ironing clothes
2 comprising a tower structure (2) having
3 uprights (3a,3b) connected at one end to a shoulder
4 piece (5) and at the opposite end to a bed (4),
5 characterised in that it comprises a moving frame (8)
6 carried slidably on said uprights (3a,3b) and
7 including jaw sets (9a,9b) gripping lower
8 edges of an article of clothing, as well as means (21)
9 of securely positioning said moving frame (8) on said
10 uprights (3a,3b), a pliable apron (29) being also pro-
11 vided sealingly interconnecting said moving frame (8)
12 and said bed (4).

1 2. A manikin according to Claim 1, characterised
2 in that each of said jaw sets (9a,9b) comprises a
3 first jaw element (10) and second jaw element (11)
4 pivotally connected to said moving frame (8) and
5 having opposing grip surfaces (13), an elastic clamp-
6 ing means (16) being connected to said second jaw
7 element (11) and said moving frame (8) and applying
8 a clamping force between said jaw elements (10,11)
9 with said jaw set (9a,9b) in its closed position, and
10 holding them apart with said jaw set (9a,9b) in its
11 open position.

1 3. A manikin according to Claims 1 and/or 2,
2 characterised in that said means of securely position-
3 ing said moving frame (8) comprises braking pads (21)
4 carried on said first jaw elements (10) on the side
5 of said uprights (3a,3b) and acting on said uprights (3a,
6 3b) with said jaw set (9a,9b) in its closed position.

1 4. A manikin according to one or more of the
2 preceding claims, characterised in that said moving
3 frame (8) is balanced in its sliding movement along
4 said uprights (3a,3b).

1 5. A manikin according to one or more of the
2 preceding claims, characterised in that said first
3 jaw element (10) carries, at said grip surface (13),
4 on the remote end from said bed (4), a bow (19)
5 mounting a flexible cloth (20).

1 6. A manikin according to one or more of the
2 preceding claims, characterised in that mounted on
3 said moving frame (8), substantially coplanarly with
4 said jaw sets (9a,9b), are slideways (24) supporting
5 slidable holding pads (25), said holding pads being
6 covered by portions of said pliable apron (29).

1 7. A manikin for steam ironing clothes accord-
2 ing to the preceding claims and substantially as
3 herein described and illustrated.

