PADS FOR STEAM PRESSING APPARATUS

FIG. 1

FIG. 2

FIG. 3
PADS FOR STEAM PRESSING APPARATUS

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26 Claims

ABSTRACT OF THE DISCLOSURE

Pads for a steam pressing head and buck comprising facing covers of heat resistant closely woven cloth impregnated with high heat resistant material, whereby to provide for dryer pressing and greater heat; and layers of loosely integrated high heat resistant strands coated with high heat resistant material adapted to lie against the steam head and buck, respectively, to allow steam to come up through the pads faster. One or both of the pads may further comprise a layer of resilient material and a layer of closely integrated high heat resistant strands coated or impregnated with high heat resistant material. The pad for the steam pressing head may comprise all these layers disposed at the underside of and attached to a perforated metal grid.


Brief summary of the invention

An object of this invention is to provide pressing apparatus comprising interposed head and buck covered by pads which include tightly woven cloth covers of high heat resistant material such as Nomex impregnated with high heat resistant material such as Teflon. With such construction a dryer pressing is obtained as well as higher heat temperatures at the garments to be pressed.

Another object of this invention is to provide pads of the character described which comprise a loosely woven or knitted layer of Fiberglass impregnated with Teflon, or loosely woven wire coated with Teflon adapted to lie against the underside of the head or against the top of the buck, to allow for faster flow of steam.

Still another object of this invention is to provide in a pad of the character described, a layer of resilient material disposed between the cover cloth and the loosely woven layer, to make the pad soft.

Yet another object of this invention is to provide in apparatus of the character described, a pad for the buck of the steam pressing apparatus comprising a plurality of layers of loosely woven or loosely knitted Fiberglass impregnated with Teflon or woven or knitted metal wire coated with Teflon constituting an accelerated vacuum pad lying against the top of the metal buck.

A still further object of this invention is to provide in an apparatus of the character described, a buck pad in which a layer of asbestos cloth overlies the accelerated vacuum pad and in which a thick layer of felted fabric made of nylon, Nomex, Arnel or the like material is placed over the asbestos cloth.

Yet a further object of this invention is to provide a buck pad of the character described, in which a relative thick perforated rubber layer is put over the felted fabric, and in which a filter cloth and starch retardant of asbestos and nylon, woven together is placed over the rubber pad, and in which a cover layer of Nomex impregnated with Teflon is placed over the filter cloth.

Yet a further object of this invention is to provide in pressing apparatus of the character described, pads for the underside of the head and for the top of the buck, the bottom cover layer of the head pad and the top cover layer of the buck pad, each comprising Nomex or other high heat resistant nylon impregnated with Teflon.

A still further object of this invention is to provide a pad for a steam pressing head comprising a perforated metal grid plate and layers of relatively closely woven and loosely woven high heat resistant strands impregnated with high heat resistant material, a layer of resilient material and a cover layer of closely woven nylon impregnated with high heat resistant material.

Yet another object of this invention is to provide a strong, rugged and durable pressing apparatus embodying the invention which shall be relatively inexpensive to manufacture and which shall yet be practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of invention will be indicated in the following claims.

Brief description of several views of the drawing

In the accompanying drawing, in which is shown an illustrative embodiment of this invention,

FIG. 1 is a side elevational view of pressing apparatus embodying the invention;
FIG. 2 is a partial bottom plan view illustrating the various layers of the head pad;
FIG. 3 is an enlarged cross-sectional view taken on line 3—3 of FIG. 1;
FIG. 4 is a partial enlarged cross-sectional view taken on line 4—4 of FIG. 1;
FIG. 5 is a partial top plan view illustrating the various layers of the pad for the buck;
FIG. 6 is an enlarged cross-sectional view taken on line 6—6 of FIG. 1;
FIG. 7 is a transverse, cross-sectional view illustrating one step in the process of making a pad embodying a modified form of the invention; and
FIG. 8 is a partial cross-sectional view illustrating the pad of FIG. 7 after it is completed.

Detailed description of the invention

Referring now in detail to the drawing, 10 designates pressing apparatus embodying the invention comprising a head 11 hinged as by hinge 12 to the buck 13. The head may be provided with the usual handle 21 and may be swung down against the buck 13. The head 11 comprises a usual head casting 15 provided at its underside with steam passages 16. The casting 15 is of curved transverse cross-section as shown in FIG. 3. Attached to the underside of the casting 15 is a transversely curved plate 17 provided with perforations 18 to allow steam to pass downwardly. Mounted on the underside of the head is a head pad 20.

The pad 20 comprises a top layer 22 of loosely woven or knitted Fiberglass impregnated with Teflon. Asbestos may be used instead of Fiberglas, and the impregnated material may be any other suitable high heat resistant material. It is found that a loose weave such as 10 by 10 is suitable for the top layer 22. Beneath the layer 22 is a layer 23 of more closely woven or knitted Fiberglas, likewise impregnated with Teflon or other high heat resistant material. The weave of layer 23 may be 32 by 29. Nylon number 30 or 120 is suitable for this purpose. Below and contacting the underside of the layer 23 is a layer 24 of knitted nylon pile fabric which is not impregnated.
The pile faces downwardly with the upper side of the layer 24 comprising the knitted back of the material. Lying against the underside of the layer 25 is an under cover layer of closely woven Nomex cloth impregnated with Teflon. High heat resistant nylon number 30 or 120 may be used for the cover cloth. Other high heat resistant material may constitute the material. The layer 25 may have a turned back sleeve 26 stitched as at 27 and receiving a tie cord 28. The cover 25 extends beyond the layers 22, 23, 24 so that the sleeve 26 may be pulled up over the surrounding outer edges of the head and held tightly. The layer 25 as shown in FIG. 6 may be provided with grommets 30 to receive the hook and ends 31 of coil tension springs 32 holding the pad against the head, in the usual well known manner. The resilient layer 24 comprises the woven back 24a from which the pile 24b faces down.

The buck 13 may be of usual construction and may comprise a chamber 40 to receive alternately steam and vacuum or vacuum alone. The chamber 40 has a top wall 41 formed with perforations 42. The top of the buck is covered by a buck pad 45. The buck pad 45 comprises an accelerated vacuum pad portion 46. The pad portion 46 comprises a plurality of layers of woven or knitted layers of Fiberglas. These are loosely woven or knitted layers of 10 by 10 heavy material. The weave of the layers of the pad 46 may be similar to the loose weave of the layer 22 of the pad 20. Instead of layers of Fiberglas, Teflon coated, woven or knitted metal wire may be used for the accelerated vacuum pad.

Overlying the pad 46 is a layer 47 of asbestos cloth used for filtration and insulation. Overlying the layer 47 is a layer 48 of unimpregnated felted fabric made of nylon, Nomex or Arnel or the like material. Overlying the layer 48 is a thick layer 49 of perforated rubber or rubberlike material. The rubber may be natural or synthetic. Overlying the layer 49 is a layer 50 of asbestos and nylon woven together forming a filter and starch retardant. Overlying the layer 50 is the cover layer 51 which is similar to the cover layer 25 and is made of Nomex or other high heat resistant nylon such as nylon number 30 or 120 impregnated with Teflon. The cover layer 51 is of greater dimension all around than the layers 47, 48, 49, 50 and is turned back at its periphery to form a sleeve 54 in place by a line of stitching 55. The sleeve receives a tie cord 54 passing through the sleeve so that the pad may be tightened around the buck and tied in such condition over the buck.

It will now be further understood that the bottom of the head pad 20 and the top of the buck pad 45 comprise covers made of Nomex or other high heat resistant nylon impregnated with Teflon or other high heat resistant material. As the head is moved down, these two cover layers trap heat therebetween providing for dryer pressing and higher heat temperatures. The accelerating vacuum pad allows steam to come up through the pad faster.

The purpose of the rubber layer 49 is to provide resiliency to the buck pad. The purpose of the felted layer 48 of the buck pad is to provide resiliency and aid in preservation and insulation of the rubber layer 49. The accelerated vacuum pad layers 46 prevent charring of the felt pad 48 and create faster drying of the garments being pressed. These layers 46 tend to trap air and keep it in, so as to reduce resistance to steam or air passing therethrough. These layers 46 also act to filter the steam.

The purpose of the pile fabric 24 of the head pad is to give resiliency to the head pad and to filter the steam. The covers 25 and 51 stay dry because the Teflon impregnating the cloth prevents absorption of moisture.

The asbestos cloth layer 47 is for the purpose of filtration and insulation. A metal peripheral frame 60 of angular cross-section may be riveted to the layers 22, 23, 24 of pad 20, by rivets 61, if desired. A similar frame 62 may be riveted to layers 46, 47, 48, 49 and 50 of pad 45, if desired, by means of rivets 63.

The Nomex or nylon 30 or 120 and the Teflon referred to herein have a melting point above 500° F.

In FIG. 8 there is shown a pad 100 illustrating a modified form of the invention. The pad 100 is to be disposed at the underside of a steam pressing head 11, as shown in FIG. 3.

The method of making the pad 100 is illustrated in FIG. 7. In FIG. 7 there is shown a flat metal grid plate 102. At the underside of plate 102 is a layer 22, as shown in FIG. 3. Against the underside of the layer 22 is a layer 23, as shown in FIG. 3. At the underside of layer 23 is a layer 24, as shown in FIG. 3 and which comprises the backing 24c and the pile 24b.

At the underside of the layers 24 is a cover cloth 25 of the same material as the cover cloth 25 of FIG. 3 is made.

The plate 102 and the layers 22, 23, 24 and 25 are superposed and stitched together by a line of stitching 105. Thereafter a binding 106 is wrapped around the entire registering peripheral edges of said layers and the binding is stitched through, as at 107. The binding 106 may be made of Nomex or other nylon impregnated with Teflon. In other words the binding 106 may comprise the same material as the layer 25.

Thereafter the flat plate 22 and the layers are pressed into the shape shown in FIG. 8, to provide a concave bottom 108 from which an upwardly extending rim portion 108a extends. The rim 108a is formed with a plurality of spaced through openings 109 through which extend rivets 110.

Mounted on the ends of each of the rivets 110 is a top 111. Engaging each loop 111 is an S hook 112. The S hooks are interconnected by springs 32 which attach the pad to the steam pressing head 11.

It will be noted that the grid plate 102 lies against the underside of the plate 17.

It will thus be seen that there is provided an apparatus and article in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings, is to be interpreted as illustrative and not in a limiting sense.

1. A steam pressing head pad adapted to be attached to the underside of a steam pressing head, a buck pad adapted to be attached to the upper side of a buck for said head, said pads being opposed one to the other, each pad comprising one or more superposed layers of integrated high heat resistant strands covered by high heat resistant material, a layer of resilient material, and covers of high heat resistant cloth impregnated with high heat resistant material, with the covers of the pads disposed toward each other, and said resilient layers being disposed between said covers and said one or more layers of said pads, respectively, and with said one or more layers of the head pad being disposed at the top to be disposed at the underside of said head, and with said one or more layers of the buck pad being disposed at the bottom to be disposed at the top of said buck.

2. The combination of claim 26, the high heat resistant cloth of said covers comprising nylon, and the high heat resistant material impregnating said cloth comprising Teflon.

3. The combination of claim 26, said one or more layers of said pads comprising Fiberglas strands and the high heat resistant material covering said one or more layers of said pads comprising Teflon.

4. The combination of claim 26, said resilient layer of said head pad comprising knitted nylon pile fabric.
The combination of claim 1, the resilient layer of said buck pad comprising a layer of perforated rubber.

6. The combination of claim 5, and a layer of felted material lying against the underside of said layer of rubber.

7. The combination of claim 1, and a layer of asbestos and nylon, woven together, interposed between said cover of said buck pad and said resilient layer of said buck pad.

8. The combination of claim 7, and a layer of asbestos cloth interposed between said one or more layers of the buck pad and the felted layer of said buck pad.

9. The combination of claim 1, said one or more layers of said head pad comprising relatively loosely integrated strands, and relatively closely integrated strands.

10. The combination of claim 1, and a frame attached to the one or more layers and resilient layers of at least one of said pads.

11. A pad for a chambered pressing element of a steam pressing machine, said pad comprising a textile layer of relatively loosely integrated strands of high heat resistant material impregnated by high heat resistant material, a cover layer of cloth comprising relatively closely woven, high heat resistant threads, said cloth being coated with high heat resistant material, and a layer of resilient material interposed between said first mentioned layer and said cover, and means to attach said pad to said element.

12. The combination of claim 11, and a textile layer of relatively closely integrated strands of high heat resistant material impregnated with high heat resistant material, interposed between the first mentioned layer and said resilient layer.

13. The combination of claim 12, said strands comprising Fiberglas and said high heat resistant impregnating material comprising Teflon.

14. The combination of claim 13, said cover cloth comprising nylon and its coating comprising Teflon.

15. The combination of claim 14, said resilient layer comprising knitted nylon provided with a nap at its underside.

16. The combination of claim 15, and a peripheral frame attached to the border of said layers.

17. The combination of claim 12, said pad further comprising a metal perforated grid plate contacting said first mentioned layer, and means to attach edge portions of said layers to an edge portion of said grid plate.

18. The combination of claim 12, said resilient layer comprising soft fibrous filter material.

19. The combination of claim 17, said means to attach edge portions of said layers to an edge portion of said grid plate, comprising a binding of high heat resistant cloth impregnated with high heat resistant material disposed about said edge portions of said layers and grid plate and stitched thereto.

20. The combination of claim 11, said resilient layer comprising a layer of perforated rubber.

21. The combination of claim 11, and a layer of felted material lying against said layer or rubber.

22. The combination of claim 11, and a textile layer of relatively closely integrated strands of high heat resistant material impregnated with high heat resistant material, said resilient layer being interposed between said cover layer and said textile layer of closely integrated strands.

23. The combination of claim 11, said resilient layer comprising knitted nylon provided with a nap.

24. The combination of claim 11, said resilient layer comprising soft fibrous material.

25. A pad for a chambered pressing element of a steam pressing machine, said pad comprising a textile layer of relatively loosely integrated high heat resistant strands impregnated by high heat resistant material and an outer cover layer of cloth comprising relatively closely woven, high heat resistant threads, said cloth being coated with high heat resistant material.

26. The combination of claim 1, said one or more layers comprising loosely integrated strands, and said covers comprising closely woven fibers.

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