

May 11, 1926.

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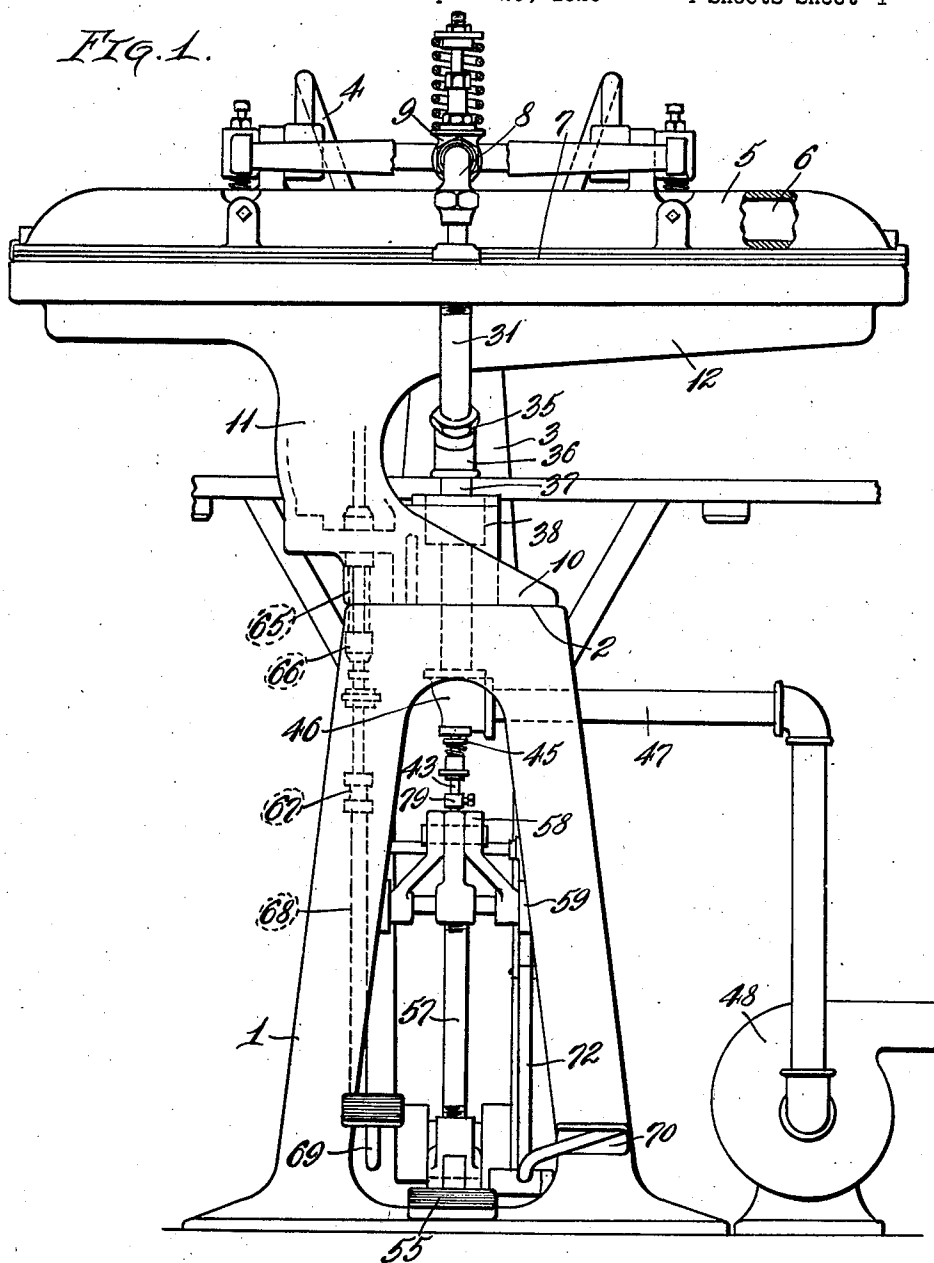
B. W. BROCKETT

BUCK AND STEAMER THEREFOR

Filed April 23, 1920

4 Sheets-Sheet 1

FIG. 1.



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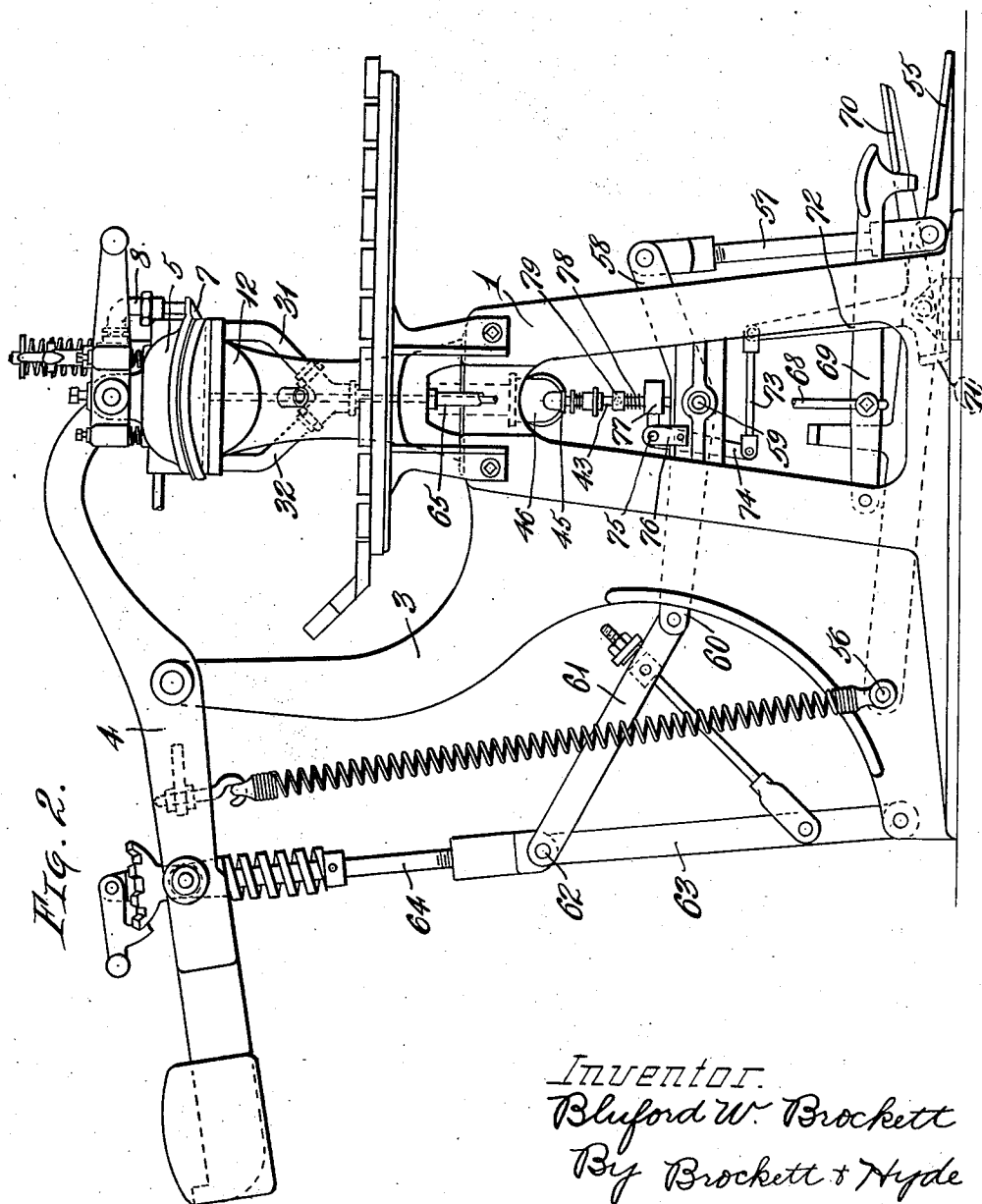
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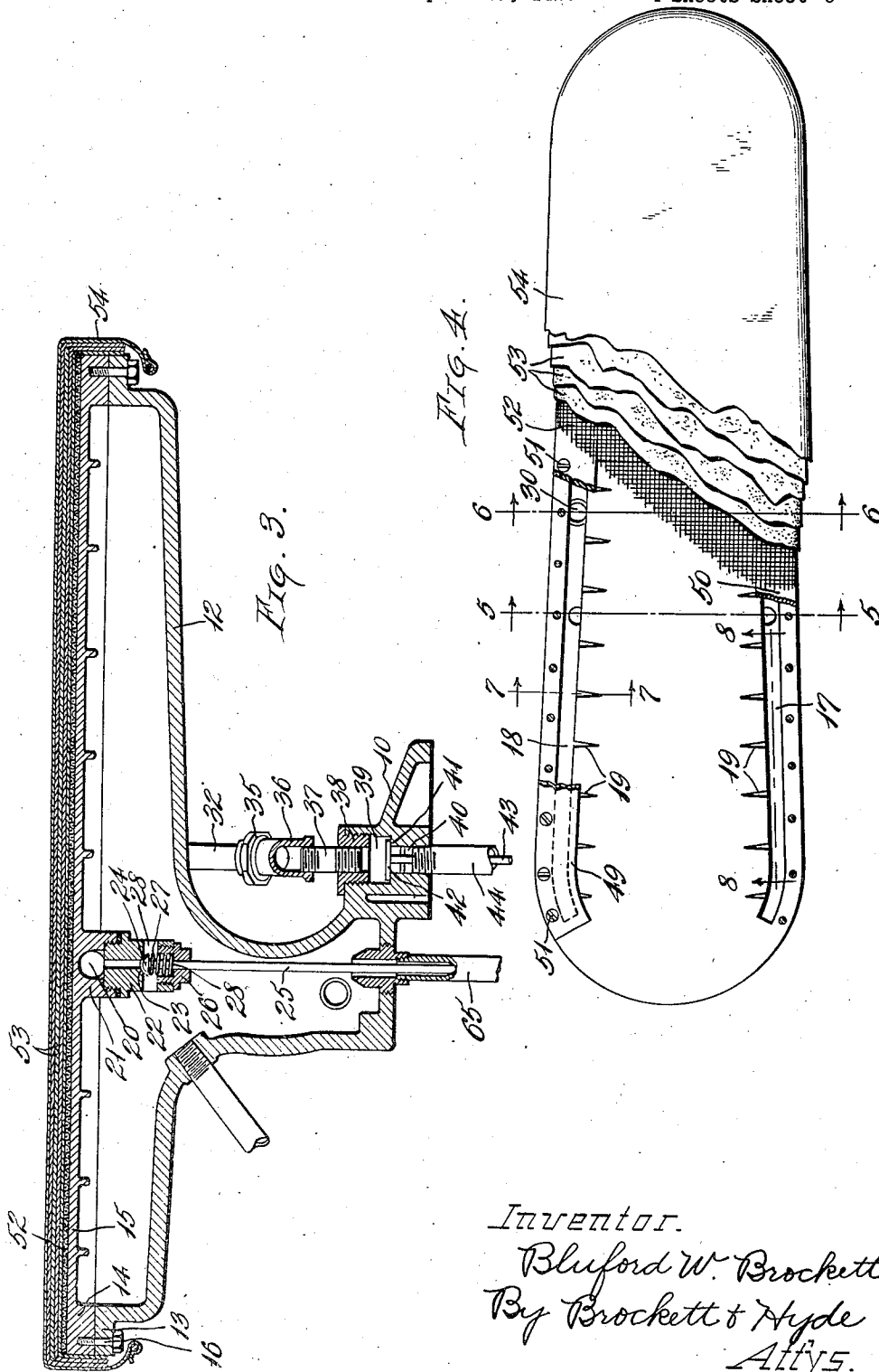
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4 Sheets-Sheet 4

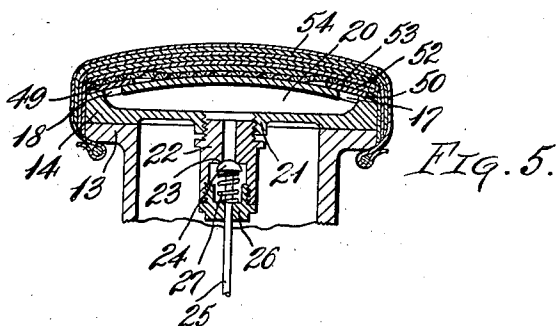
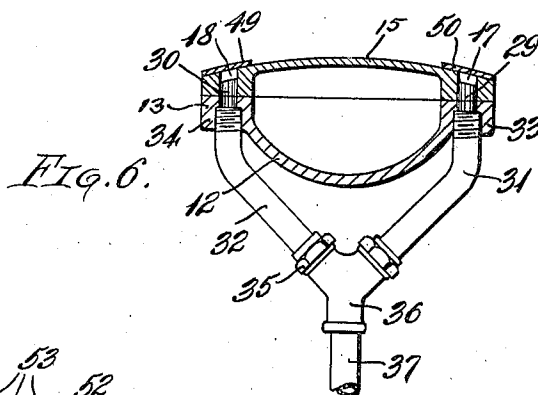
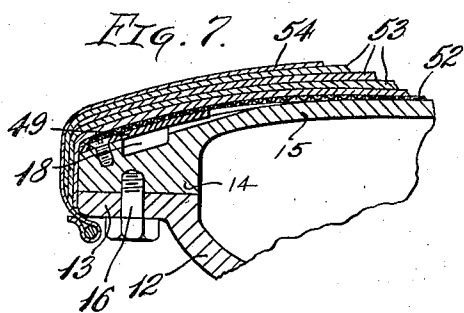
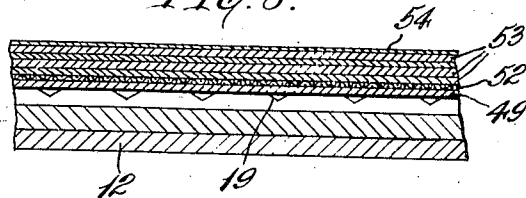


Fig. 8.



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UNITED STATES PATENT OFFICE.

BLUFORD W. BROCKETT, OF EUCLID HEIGHTS, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO THE AMERICAN LAUNDRY MACHINERY COMPANY, OF NORWOOD, OHIO, A CORPORATION OF OHIO, AND ONE-HALF TO METROPOLITAN TRUST COMPANY, TRUSTEE, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

BUCK AND STEAMER THEREFOR.

Application filed April 23, 1920. Serial No. 376,084.

This invention relates to garment presses and ironing machines, the features of the invention being applied, in the disclosure shown, to the type known as garment presses.

5 In garment presses it has been customary to utilize a steam heated head and a buck, the latter having a steam chamber arranged below, and separated by a partition from, a steaming and vacuum chamber. This
10 steaming and vacuum chamber is as a rule coextensive with the ironing face of the buck and normally tends to act as a heat insulating medium and prevents rapid radiation of the heat of the heating chamber
15 to the padding and garment. This is necessary for the reason that when steaming from below, or from the buck, it is necessary to distribute steam under the entire padding and to have the vacuum,
20 which draws away the steam, also effective throughout the entire area.

The present invention therefore relates to a press wherein the buck is provided with a heating chamber having a single upper wall
25 directly below the padding and provided around the margin with a recess or channel opening out on the face of the buck and extended inward by means of a series of short tapered channels. The marginal channel
30 feature is preferably arranged by providing two channels, one at the front and one at the rear and the channels themselves are both covered by strips secured to the edges and lapping over the channels and
35 over portions of the inwardly extending lateral channels so as to provide means for projecting steam toward the center of the buck and under the padding thereon. These front and rear channels are supplied
40 with steam preferably from the steam chamber of the buck and are connected to the vacuum device so that they serve the two functions and permit of having a single wall between the padding and steam or
45 heating chamber throughout substantially the entire or major portion of the buck.

Further details of the invention will more fully and at large appear from the embodiment of the invention shown in the following description, drawings, and claims.

Fig. 1 is a front elevation of the machine; Fig. 2 is a left side elevation; Fig. 3 is an

enlarged longitudinal section of the buck structure; Fig. 4 is a top plan view of the buck with the padding broken away; Fig. 5 is a section upon the line 5—5, of Fig. 4; Fig. 6 is a section upon the line 6—6, of Fig. 4; Fig. 7 is an enlarged section upon the line 7—7, of Fig. 4; and Fig. 8 is a section through the front marginal channel
60 upon substantially the line indicated by the arrows 8—8, Fig. 4.

In the embodiment shown, 1 represents a main standard or frame having a shelf 2 for receiving the lower buck structure as will appear. This frame is also provided with a rearwardly and upwardly extending arm 3. Pivotaly mounted on the upper end of this arm 3 is a pressing head supporting lever 4 which is counterbalanced
70 or weighted in the customary manner. Mounted on the front end of this supporting lever 4 is a presser head 5 having a heating chamber 6 therein and also provided with a front edge steaming device
75 7 of any approved construction. This steaming device is connected by a pipe 8 with the valve mechanism 9 in turn connected to the steaming chamber 6. Steam is supplied to the chamber 6 in any suitable
80 manner.

The buck structure comprises a base 10, adapted to be secured upon the shelf 2, and an upwardly extending arm 11 preferably hollow and forming a part of the
85 main body 12 of the buck, the body portion being hollow also and communicating directly with the opening in the part 11. The main body of the buck is of any desired shape and it terminates at its edges in
90 a flange 13 extending around the body portion. The upper face of this flange 13 is finished and receives an edge flange 14 of a buck plate 15. The flange 14 is held upon the flange 13 by suitable screws 16.
95 The upper face of the buck plate along substantially the entire front and rear margins, and substantially within the area of the flange 14, is provided with a front channel 17 and a rear channel 18. Extending
100 inwardly from both of these channels are tapering recesses 19 for a purpose to be described. Communicating with these channels 17 and 18 is a transverse steaming port

20 preferably formed in a web in the buck plate itself and communicating with a centrally disposed threaded boss 21. Secured in this boss is a steam valve body 22 having a valve seat 23 which receives a valve 24 arranged upon a valve stem 25 slidable in a stem guide 26 arranged in the body 22. A spring 27 is interposed between the guide 26 and the valve 24 and tends to seat the valve. The valve body is further provided with openings 28 which establish communication between the steam chamber of the buck body and the steam valve body. From the foregoing it will be seen that when the rod 25 is pulled down steam may pass freely to the port 20 and thence to the channels 17 and 18.

The channels 17 and 18 also communicate by ports 29 and 30 respectively with vacuum pipes 31 and 32 which are threaded into suitable bosses 33 and 34 on the underside of the flange 13. These two pipes form the arms of a Y and each is provided with a suitable union nut 35 for connection to a Y coupling 36 arranged at the upper end of a vacuum pipe 37. This vacuum pipe extends into a connection 38 secured in the base 10 having a vacuum chamber 39 formed therein. This vacuum chamber is provided with a centrally disposed opening 40 forming a valve seat 41. This valve seat is engaged by a vacuum valve 42 arranged upon the upper end of a vacuum valve stem 43 which extends down through a vacuum pipe 44 to the space within the standard 1 where it passes out through a stuffing box structure 45 arranged in a T 46, which is not only threaded onto the pipe 44 but has a side opening connected to a pipe 47 leading to a suitable source of vacuum such as a fan or blower 48.

The device just described, and forming a vacuum device, may be used equally well with a positive type of pump in which event the device 48 is a blower and blows air through the padding when the valve 42 is open, in place of sucking air and steam through the padding.

Arranged upon the upper face of the buck plate and extending over the channels 17 and 18 and partly over the inwardly extending tapered channels 19 are plates 49 and 50. These plates conform to the marginal edge of the buck plate and are held in place by suitable screws 51. From the foregoing it will be seen that when steam is supplied to the channels 17 and 18, it is projected toward the center of the upper face of the buck plate by the inwardly extending tapered channels 19. It is also evident that the same channels can serve to pass air through the padding in either direction by either the suction or blowing effect. Overlying the buck plate and the strips 49 and 50 is a layer of wire mesh 52 which serves to pre-

vent the clogging of the exposed portions of the channels 19. Extending over this wire mesh are several layers 53 of padding which extend down over the edges of the buck plate all around and are held in neat arrangement thereon by a cover cloth 54 drawn tightly thereover and down around the edges, as shown. It will be seen from the foregoing construction that the steaming and air drying effect may be obtained through the same channels without interfering with the direct transmission of the heat through a single wall from the heating chamber of the buck to the padding thereon.

One beneficial result of the construction above described resides in the fact that the intimate relation of the heating chamber to the padding insures the moisture being in a mobile state at all times whereby it is readily removed by the air moving apparatus.

Any suitable means may be employed for moving the head supporting lever 4, one suitable arrangement being the one set forth in the drawings which is similar to that disclosed in the patent to Cooper, No. 1,332,711, patented March 2, 1920, such mechanism including a foot treadle 55 pivoted at 56 in the frame and connected by a link 57 with the forward arm 58 of a two armed lever pivoted at 59. The rear arm 60 of this lever is connected by a link 61 to a pivot 62, such pivot forming a connection between the toggle links 63 and 64, the latter link being connected in any suitable manner, such as the one shown in said patent, to the lever 4. It is obvious that when the treadle is raised the press is open and when it is depressed the press is closed and mechanical pressure is exerted between the press head and buck.

Any suitable mechanism may be provided for operating the valve stem 25, the arrangement shown in the drawings being one wherein the part 11 of the buck is provided with a downwardly extending tubular member 65 provided with a stuffing box 66 at the lower end surrounding the valve stem 25, said stem extending down and being connected by a coupling 67 with a rod 68 pivotally secured to a steam treadle 69.

Any suitable mechanism may be provided for operating the vacuum valve but in the arrangement shown the foot treadle 55 is provided with a release treadle 70 having a lug 71 adapted for engagement with the foot treadle whereby the latter may be elevated to unlock the press after a manner common to this type of machine. This release treadle 70 is provided with an upwardly extending arm 72 connected by a link 73 with an arm 74 of a bell crank lever pivoted upon a pin 75 mounted in a bracket 76 secured to the frame. This bell crank lever has another arm 77 engaging a spring 78 around the vac-

uum valve stem 43. This spring thrusts against a collar 79 secured to the stem.

It will be seen from the foregoing that the operator may open and close the press; that he may steam with the steaming treadle; and that he may release the press and when released may utilize the vacuum or air for drying.

What I claim is:

- 10 1. In a garment press, a frame, a head, a hollow heated buck having a heating chamber bounded by a single upper wall, the upper surface of which forms a pressing face, said surface being imperforate throughout substantially the main pressing area thereof, a padding upon said face, and means within the pressing area of said buck for supplying steam to and directing it through the padding on said buck.
- 20 2. In a garment press, a frame, a head, a hollow heated buck having a heating chamber bounded by a single upper wall, the upper surface of which forms a pressing face, said surface being imperforate throughout substantially the main pressing area thereof, a thick padding upon said face, and means for supplying steam to and directing it through the padding on said buck and for moving air through said padding.
- 30 3. In a garment press, a frame, a head, a hollow heated buck having a heating chamber bounded by a single upper wall, the up-

per surface of which forms a pressing face, a padding upon said face, and means within the pressing area of said buck for supplying steam to and directing it through the padding on said buck, said means including edge steaming devices arranged within the pressing area adapted to direct the steam across the buck and through the padding.

4. In a garment press, a frame, a head, a hollow heated buck having a heating chamber bounded by a single upper wall, the upper surface of which forms a pressing face, a padding upon said face, and means for supplying steam to and directing it through the padding on said buck and for passing air through said padding, said means including devices arranged at the edge of the buck.

5. In a garment press, a frame, a head, a hollow heated buck having a heating chamber bounded by a single upper wall, the upper face of which forms a pressing face conforming substantially to the area of the head, said buck being provided with a channel within its face and adjacent its margin, means for supplying a treating medium to said channel, means for directing said medium across the face of the buck, and a padding arranged upon said face.

In testimony whereof I affix my signature.

BLUFORD W. BROCKETT.