July 18, 1950 H. D. FORSE ET AL 2,516,054

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Fig. 1

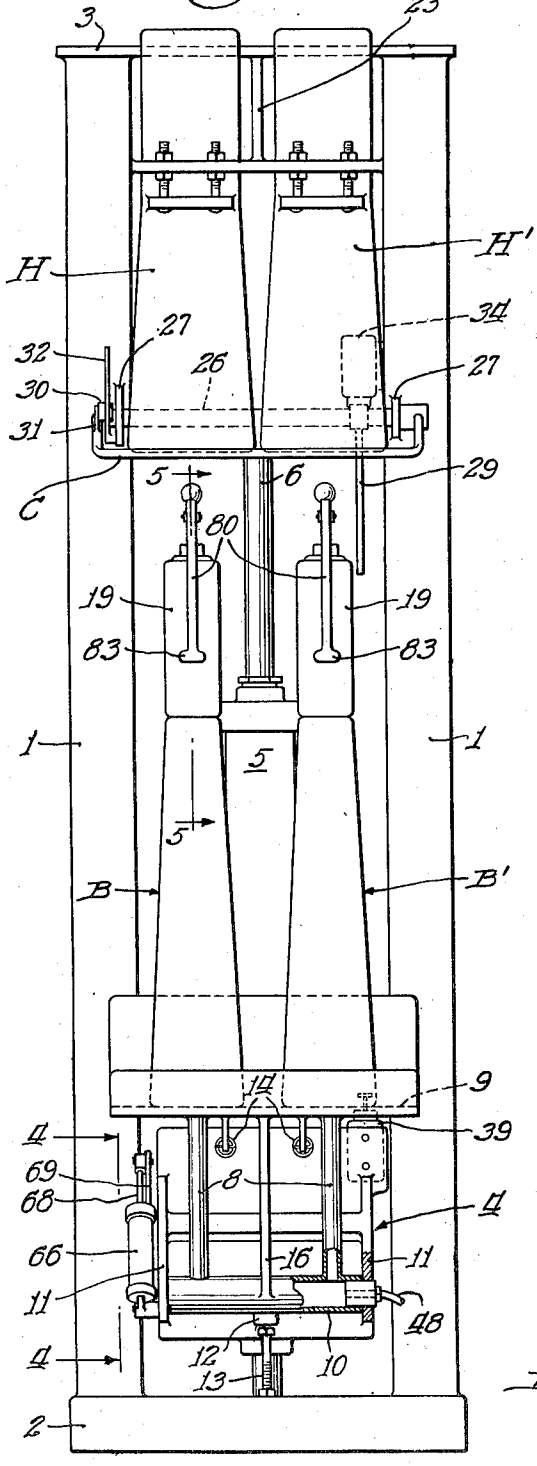
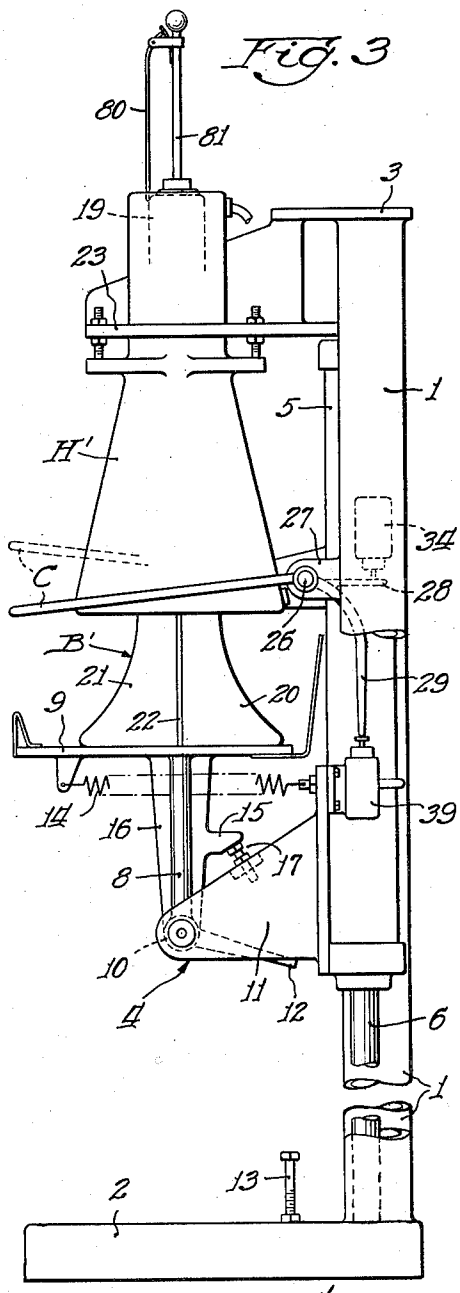


Fig. 3



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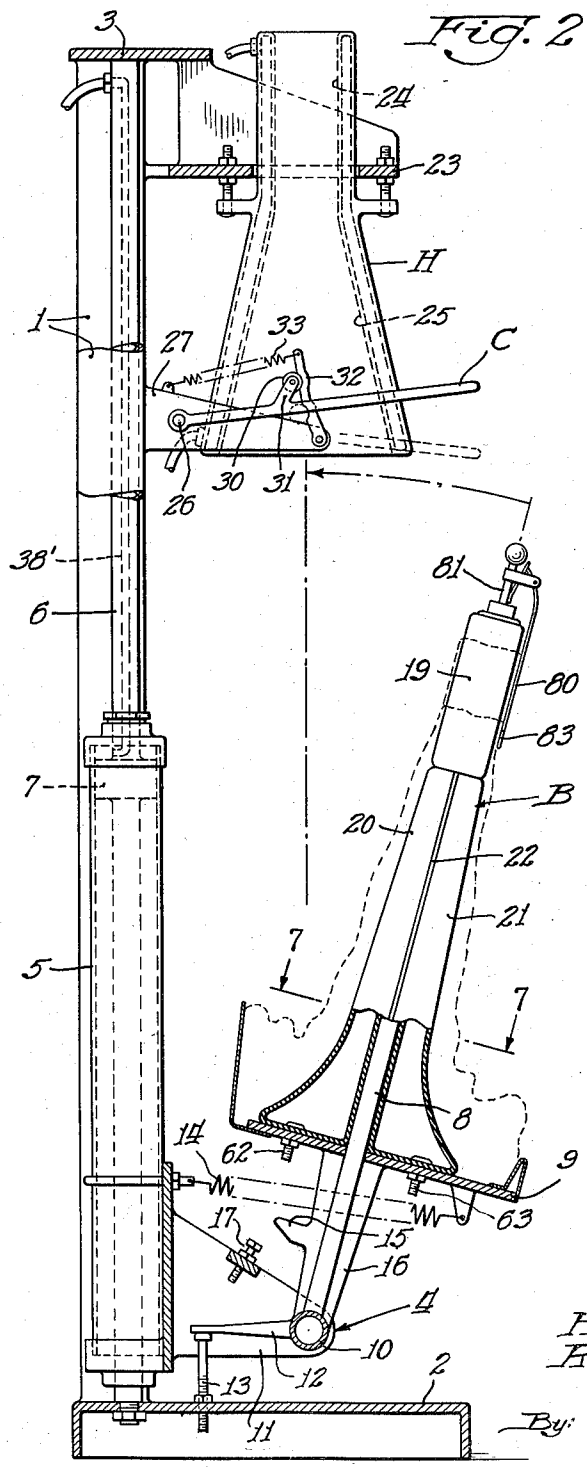
By: Langson Munn
Attys

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Fig. 2



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Fig. 4

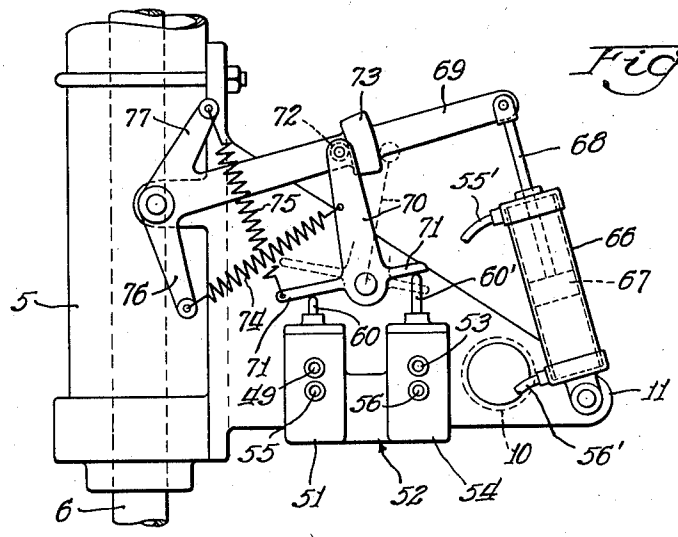


Fig. 5

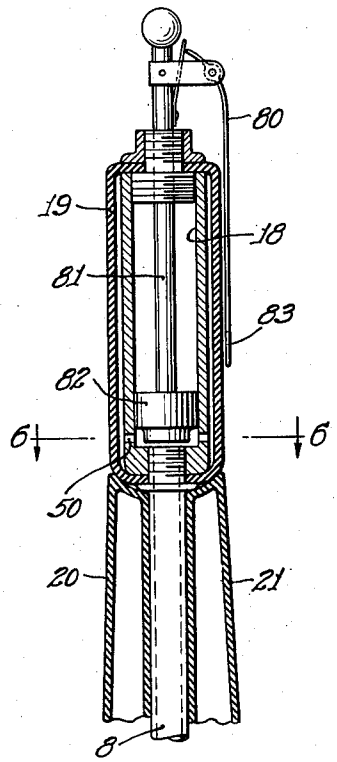


Fig. 6

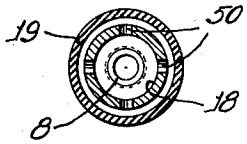
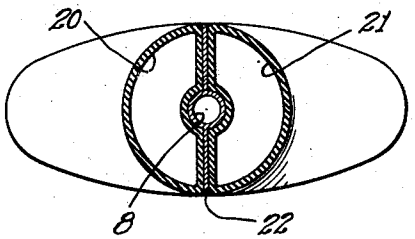


Fig. 7



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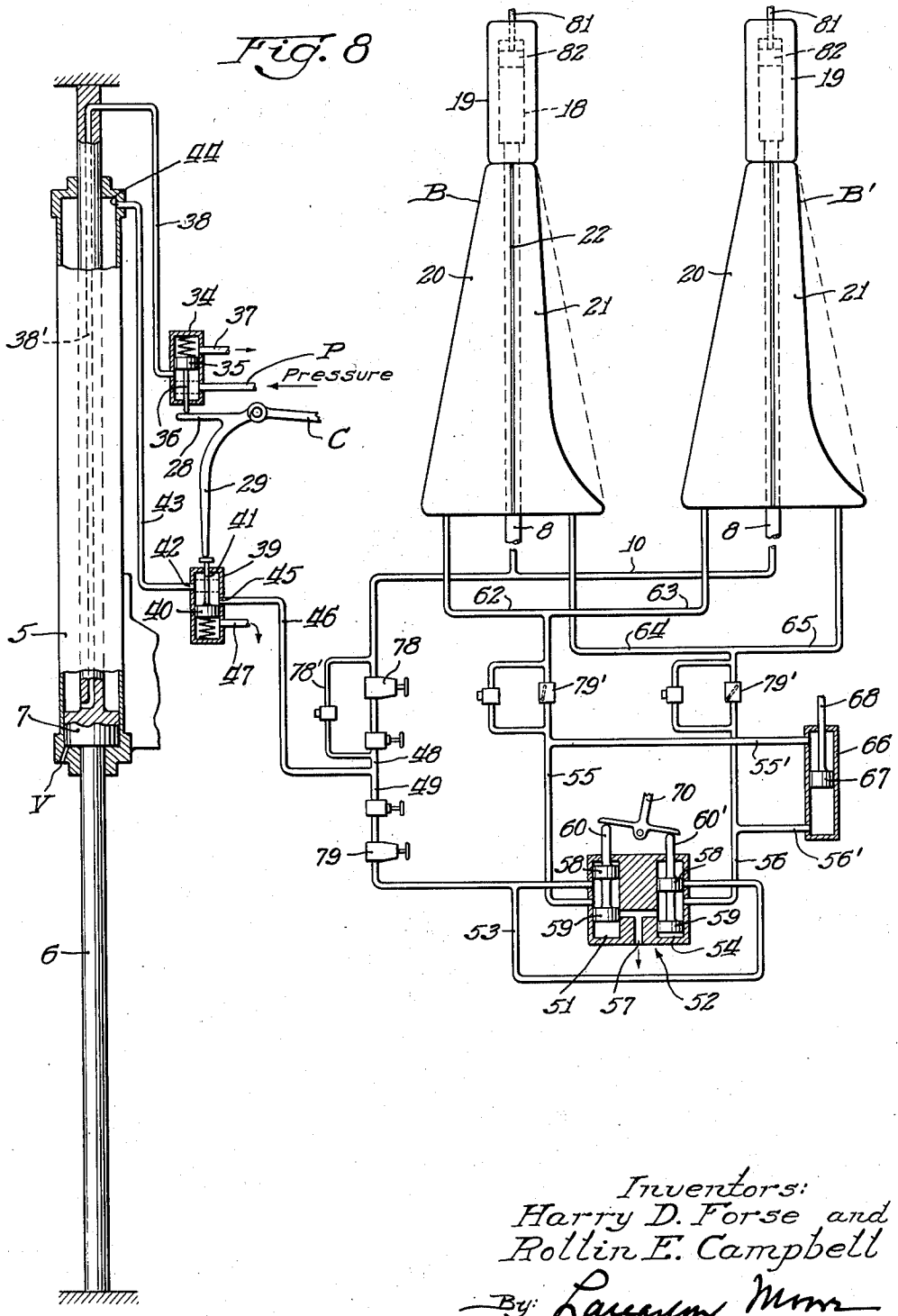
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Fig. 8



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Patented July 18, 1950 2,516,054

UNITED STATES PATENT OFFICE

2,516,054

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Application March 15, 1946, Serial No. 654,550

32 Claims. (Cl. 223—73)

1

This invention relates to improvements in garment presses and more particularly to a press for ironing the sleeves of men's skirts in power laundries.

It is most desirable to finish a man's shirt entirely on pressing machines without the necessity of any hand finishing. Many power laundries now employ finishing stations, each station including a plurality of machines for pressing different portions of the shirt actuated by several operators, whereby the damp shirt is received at one side of the station, is passed through the pressing machines by the operators and leaves the station in an ironed and folded condition. Presses have been developed for ironing various portions of the shirt, including the back, bosom, yoke and neck band, cuffs and gussets. Most of the power laundries still use what is called a "sleever" for removing the wrinkles of the sleeves between the shoulder and gusset. These sleevers for many years have included two spaced-apart polished metal steam heated cones, adapted to enter the arm holes of a shirt so that the operator may pull the shirt over them to dry and possibly stretch the wrinkles out of the sleeves between the shoulder and the gusset. These sleeves are not entirely satisfactory because shirts of different sizes have different size sleeves and different length sleeves.

It is an object of this invention to provide a garment press including two members adapted to enter the arm holes of shirts to receive the respective sleeves and then cause the members, or bucks to enter into a pressing head and thereafter to expand and force the sleeve against the ironing surface of the head, irrespective of the length or size of the sleeve. It is a further object to so construct a sleeve press of this kind that will be operated entirely by air pressure; that will accomplish the pressing of the cuff and gusset at the same time it presses the sleeve between the gusset and the yoke; in which the operator may actuate the control to cause this press to operate while handling other shirts on other presses and by again actuating the control the pressed shirt sleeves will be moved to a position for the removal of a shirt.

With these and other objects in view, reference is made to the accompanying drawings which illustrate a preferred form of this invention with the understanding that detail changes may be made therein, without departing from the scope thereof.

In the drawings:

Figure 1 is a view in front elevation of a preferred form of this garment press having received the sleeves of a shirt (not shown) and

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moved to its vertical position as indicated by the dot and dash line on Figure 2.

Figure 2 is a view in side elevation of Figure 1 showing the sleeve bucks in lowermost position to receive a shirt, with parts broken away and parts shown in section, indicating a shirt sleeve in position in dotted lines on a sleeve buck.

Figure 3 is a view in side elevation, with parts broken away, illustrating the sleeve receiving bucks in raised or ironing position.

Figure 4 is an enlarged detailed view of the mechanism for alternately inflating and deflating the buck bags, as taken on the line 4—4 of Figure 1.

Figure 5 is an enlarged fragmentary, detailed view in central section taken on the line 5—5 of Figure 1, looking in the direction of the arrows, illustrating the cuff bag with the cuff retainer in position to hold the cuff thereon.

Figure 6 is a view in section taken on the line 6—6 of Figure 5, looking in the direction of the arrows.

Figure 7 is a view in section taken on the line 7—7 of Figure 2, looking in the direction of the arrows.

Figure 8 is what may be termed a piping diagram illustrating the various pipes, valves and controls for conducting air under pressure for operating this press.

The embodiment of this invention as illustrated upon the drawings includes a press comprising two spaced-apart vertical supports 1 mounted upon a base 2 and joined at their ends by plate 3. The buck members for receiving the shirt sleeves, B and B^1 are supported upon a carriage indicated generally by 4, secured to the lower end of a cylinder 5 mounted upon a vertical piston rod 6 secured to the base 2 and plate 3 intermediate the supports 1 having a piston 7 intermediate its length with the upper end of the cylinder 5 resting in spaced-apart engagement upon the upper side of the piston in the normal downward position. Each buck member B, B^1 is mounted upon a central hollow tubular support 8 extending throughout the buck and through a table 9 at the lower end of the buck to be supported by and in communication with a horizontal hollow cylindrical member 10 the opposite ends of which are rotatably mounted in side plates 11 forming a part of the carriage 4 carried upon the lower end of the cylinder 5. In the lowermost position an angular extension 12 from the cylinder 10 is engaged by a stop 13 adjustably mounted upon base 2 to tilt the bucks and supporting rods 8 at an angle, as shown in Figure 2. Upon the upward movement of the cylinder 5, coil springs 14 con-

nected to the outer portion of the table 9 and carriage 4 moves the bucks and buck supporting shafts 8 to a vertical position bringing an extension 15 upon a plate 16 connecting the underside of the table 9 with the shaft 10 into engagement with an adjustable stop 17 upon the carriage 4 to maintain the bucks in vertical relationship.

Each buck includes a cuff and gusset pressing section and a sleeve pressing section at its free end. The upper end of the hollow shaft 8 mounts, and is in connection with, an axial cylinder 18 about which is secured a cuff and gusset pressing bag 19 of expansible and contractible material with the interior of the bag in communication with the interior of the cylinder 18. Mounted about each hollow shaft 8 between the cuff and gusset pressing bag 19 and the top of the table 9 on each buck are two sleeve pressing bags 20 and 21 divided vertically by a form plate 22 mounted on the shaft 8. These bags are each of expansible and contractible impervious material and are similar in shape, tapering upwardly in cross section from a semi-elliptical bottom secured to the upper surface of the table 9.

Two heads H and H[1] are adjustably mounted upon a frame 23 between the upper ends of the vertical supports 1 attached to the top cross plate 3. These heads are formed of a shape to cooperate with the bucks B and B[1] each having a spaced-apart inner wall having polished inner ironing surfaces adapted to be heated by the passage of steam between the walls in the usual manner. Each head includes a cylindrical portion 24 adapted to receive and cooperate with the cuff and gusset bag 19 which cylindrical portion flairs outwardly and downwardly to form a surface 25 cooperating with the sleeve bag 20 and 21 when the carriage 4 is moved upwardly to bring the bucks into cooperative relation with the heads.

The carriage 4 is raised and lowered, the cuff bags are expanded and contracted and each of the two sleeve bags on each buck is alternately expanded and contracted by the admission of air under pressure to expand them and means to exhaust the air to contract them, as shown on the piping diagram of Figure 8. An actuating control C in the form of a U-shaped lever extending about the front of both heads H and H[1] adjacent their lower edges with the free ends of each arm mounted upon a connecting shaft 26 pivotally mounted in brackets 27 extending from each vertical support 1. The connecting shaft 26 is provided with a rearwardly extending valve operating member 28 and a depending valve operating member 29. The actuator control C is normally maintained in its upper or inoperative position shown in Figure 2, by the engagement of a roller 30 on an extension 31 from one of the side members of the actuating control C engaging a notch in an arm 32 pivoted upon the adjacent bracket 27 and held in engagement with the roller by a spring 33. This member is provided with another notch which is engaged by the roller 30 when the actuating member C is depressed. In the upper position the valve operating members are out of operative engagement with their respective valves.

Mounted on one of the vertical supports 1 is a valve 34 having a spring pressed piston 35 with its piston rod 36 extending on the side opposite the spring through the bottom of the valve casing. This valve has an inlet port adjacent the lower end of the valve casing connected to a pipe P in communication with the source of pressure, see Figure 8. Adjacent the upper end of the cas-

ing an exhaust port 37 is provided. Intermediate these ports a port is provided connected by pipe 38 to a port 38[1] extending axially within the piston rod 6 from the upper end to the interior of the cylinder 5 above the piston 7, as shown in Figure 8. The spring normally presses the piston 35 to close the pressure inlet port and connect the pipe 38 to the exhaust port 37, so that when the cylinder 5 is in its lowermost position with the top of the cylinder in engagement with the top of the piston 7 and the control lever C is depressed the valve operating member 28 engages the valve stem 36 and moves the piston 35 into a position to connect the source of pressure to the pipe 38 to transmit pressure to the space between the top of the cylinder 5 and the top of the piston 7 to raise the cylinder 5 to the position shown in Figure 3.

When the actuating control C is moved to its uppermost position the valve engaging member 28 moves downward allowing the spring pressed piston 35 to move to close the port to the source of pressure and connect the exhaust port 37 to the pipe 38 whereby the weight of the cylinder 5 and parts carried thereby moves the cylinder downward over the piston 7 on rod 6 and allows the air to escape through the pipe 38 to the exhaust port 37. Air enters and leaves the cylinder 5 through vent *v* at the lower end.

Another valve 39 is mounted on the carriage 4 below and in line with the valve 34 having a spring pressed piston 40 with the piston rod 41 normally extended through the top of the valve casing by the tension of the spring. The depending curved valve actuating member 29 is normally out of engagement with the piston rod 41 when the actuator control C is in its uppermost position and when moved to its lowermost position the member 29 engages the piston rod 41 and depresses the piston 40 against the tension of the spring when the carriage 4 approaches its upper end of travel. The valve casing 39 is provided with three ports. One port 42 near its upper surface is connected by the pipe 43 to a port 44, leading from the interior of the cylinder 5 adjacent its upper end. The casing of the valve 39 is provided with a port 45 on the side opposite port 42 which is connected by a pipe 46 to the buck bags inflating and deflating apparatus. The port 45 is a sufficient distance below the port 42 so that when the piston 40 is freed by the movement of the arm 29, the spring will move the piston to close the port 42 and allow the pressure in pipe 46 to exhaust through port 45 and out through the exhaust port 47. When both valves are operated by the two valve operating members 28 and 29 pressure from the source will first raise the cylinder 5 to its uppermost position and then the pressure will be conducted through port 44, pipe 43 and through the valve 39 into the pipe 46. When the actuator control C is moved to the uppermost position both valves will be released and the air exhausted from the cylinder through valve 37 and from the pressure operated mechanism through valve 37 and from the pressure operated mechanism through the exhaust port 47 of valve 39.

The pressure pipe 46 conducting pressure from the valve 39 is connected to branch pipes 48 and 49. The branch 48 is connected to the hollow shaft 10 supporting the hollow shafts 8 passing through the sleeve buck bags to the cylinder 18 supported on the end of each of these pipes. The cylinder 18 is provided with ports 50 adjacent its lower end which communicates the pressure from

pipe 8 to the interior of the cuff and gusset pressing bag 19.

When the actuator control C is tilted upwardly the cylinder 5 and carriage 4 will move downwardly moving the valve 39 with it allowing the air within the cuff and gusset pressing bag to exhaust through pipes 8 and 48.

The branch 49 enters one side of one cylinder 51 of a duplex valve 52 and by a by-pass 53 enters the opposite cylinder 54 of said valve 52. The cylinder 51 is provided with another port below the first port connected to a pipe 55. The cylinder 54 is provided with a similar port connected to a pipe 56. The lower portions of both cylinders 51 and 54 are connected to each other by a T-shaped port 57 leading to the atmosphere. Each cylinder is provided with two pistons 58 and 59 mounted upon piston rods 60 and 60¹ extending through the upper casing of the respective cylinders. The pistons are so arranged on each piston rod that when the uppermost piston engages the top of the valve casing the ports leading from pipe 49 and bypass 53 will be connected to the pipes 55 and 56, and the exhaust port 57 closed. When the pistons are in the lowermost position the inlet ports from the source of pressure will be closed and the ports leading from pipes 55 and 56 will be connected to the exhaust port 57. The pipe 55 is connected by branches 62 and 63 to the interior of the corresponding sleeve pressing bags 20 upon each buck so that when the pipe 55 is connected through the valve 52 to the source of pressure these respective bags will be inflated and when these pipes are connected to the exhaust 57 these respective bags will be deflated. The pipe 56 is connected to the branches 64 and 65 leading to the interior of the other set of sleeve pressing bags 21 oppositely disposed upon each buck. When the pistons in cylinder 54 of the valve are moved in opposite directions the oppositely disposed sets of bags 20 and 21 will be inflated and deflated.

By alternately inflating one set of bags while the other set is deflated and then inflating the second set of bags when the first set of bags is deflated, pressure will be alternately applied to opposed portions of the shirt sleeves embracing the respective bucks. In order to automatically accomplish this alternating operation a cylinder 66 is pivoted at one end to the bracket 11 of the carriage 4. The interior upper end of the cylinder 66 is connected by pipe 55¹ to pipe 55 and the lower end of the cylinder 66 is connected by pipe 56¹ to pipe 56. A piston 67 is mounted on the lower end of a piston rod 68 which rod extends through the upper end of the cylinder 66. The free end of the piston rod 68 is operably connected to one end of an operating lever 69 which in turn is operably connected to the bracket 11 of the carriage 4. Intermediate the upper extremities of the piston rods 60 and 60¹ of the duplex valve 52, an actuating arm 70 is pivotally mounted upon the carriage 4. The actuating arm 70 has oppositely disposed extensions 71 adapted to engage and alternately depress the piston rods 60 and 60¹. The upper end of the actuating arm 70 is provided with a roller 72 adapted to travel about a stop 73 carried upon the arm 69. An off center snap movement is applied to the actuating arm 70 by means of the coil springs 74 and 75. The coil spring 74 is connected at one end to the lever 70 above its center and at the other end to an arm 76 depending from the pivoted end of the lever 69. The spring 75 is connected at one end to the extremity

of the extension 71 on one side of the arm 70 and at the other end to the extremity of an extension 77 from the upper side of the lever 69, as shown in Figure 4. In the position shown in Figure 4 the left hand piston rod 60 has been depressed and the right hand piston rod 60¹ has been extended to allow pressure from bypass pipe 53 to enter through pipe 56 and by branch 56¹ to the underside of the piston 67 of the cylinder 66 and at the same time through pipe 56 and branches 64 and 65 to inflate the right hand bags 21 of both sleeve bucks. Upon further movement in an upward direction the piston 67 will move the stop 73 upwardly and at the same time increasing the tension on spring 75 while decreasing the tension on the spring 74 so that as the piston reaches the upward end of its stroke the roller 72 will travel over the bottom of stop 73 causing the arm 70 to rotate about its pivot and in so doing will depress the right hand piston rod 60¹ to open the exhaust from the right hand sleeve bags 21 and underside of the piston 67. This will allow the piston rod 60 on the left hand side to move upwardly to connect the source of pressure to the oppositely located or left hand sleeve bags 20 and to the upper side of the piston 67 which will cause the lever 69 to rotate about its pivot in a downwardly direction and cause the roller 72 to travel over the right hand surface of the stop 73 until the stop passes under the roller when the spring 74 will cause the roller to pass over the stop and rotate the arm 70 in the opposite direction to assume the position shown in Figure 4. This cycle will be repeated as long as the valve 39 admits pressure from the source to enter the pipe 46 so that there will be an alternate inflation and deflation of the corresponding bags of each pair of buck bags upon each buck.

In an air operated press of the type described it is preferable to employ a pressure of approximately 60 pounds to the square inch in the source of pressure for operating the cylinder 5 in moving the bucks into pressing position. It is also preferable to employ a pressure of 15 to 30 pounds per square inch in the cuff and pressing bags and from 5 to 10 pounds in the sleeve pressing bags 20 and 21 of the bucks. It is therefore preferable to provide an adjustable check valve 78 in the branch pipe 48 leading to the cuff bags 19 to adjust the pressure as desirable with a by-pass 78¹ thereabout to allow the cuff bags 19 to be exhausted. It is also preferable to place a similar adjustable check valve 79 in the pipe 49 leading through duplex valve to the interior of the respective bags 20 and 21 upon each buck. It is also desirable to maintain these buck bags 20 and 21 at all times under a pressure of approximately 1 pound per square inch or less and this is preferably accomplished by inserting in pipe 55 between branch 55¹ and branches 62 and 63 and in pipe 56 between branch 56¹ and branches 64 and 65, relief valves 79¹ so arranged that air passes through them freely in one direction and in the reverse is opposed by a slight spring pressure to retain a slight pressure in the bag being exhausted.

In the position shown in Figure 2, the carriage 4 has reached its lowermost position and the bucks B and B¹ have been tilted outwardly at an angle to the vertical. This is the position to receive the sleeves of a shirt. The operator grasps a shirt by the shoulders and passes the shirt over the bucks with the bucks entering the arm holes of the sleeves and may continue the insertion until the shoulder reaches a mark upon

the buck or until the cuff reaches a mark upon the cuff pressing bag or buck 19. Each cuff is then smoothed about the cuff pressing bag and is held in position by a spring 80 carried on the end of a piston rod 81 passing through the upper end of the cylinder 19 attached to a piston 82 which may be manually depressed to engage the bottom of the cylinder when the air has been exhausted from the cuff bag 19 so that extensions 83 at the bottom of the spring may engage the adjacent edges of the cuff and hold it in position, as shown in dotted lines on Figure 2. The operator then depresses the actuator control C. This admits air through the upper valve 34 to raise the cylinder 5, the first effect of which is to align the centers of the bucks B and B^1 with the center of the heads H and H^1, respectively, and upon further movement, the bucks are caused to enter the heads until the lower valve 39 carried upon the carriage 4 is actuated to admit air into the central buck supporting pipe 8 and into the duplex valve. The admission of air will cause the piston 82 carrying the spring 80 to move upwardly as the air under pressure enters the interior of the cuff pressing bag 19 so that as the edges of the cuffs are pressed against the pressing surface of the heads, holding spring portions 83 will be moved out of engagement with the cuffs. As this occurs, the two bags 20 and 21 on each buck will be alternately expanded and contracted whereby a pressing action against the interior of the head is imparted to the sleeve between the gusset and the shoulder irrespective of the size of the shirt or length of the sleeve.

The expansible and contractible pressing members may be of elastic material or any other material impervious to air under pressure which in the expanded position will force the portions of the shirt sleeve into ironing engagement with the interior surface of the head and when the air is exhausted may shrink or collapse together in folds.

What we claim is:

1. A garment press comprising, a sleeve receiving buck, a cooperating head operably associated with said buck, means for moving said buck and said head into telescoped relation, expansible and contractible means on said buck, and control means automatically operable upon the movement of said buck and said head into telescoped relation for intermittently expanding the expansible and contractible means on said buck.

2. A garment press comprising, a buck, a hollow head operably associated with said buck, means for moving said head and said buck into pressing relation, expansible and contractible means carried by said buck, means actuated by the movement of said buck and said head into pressing relation for expanding said expansible and contractible means, and means for alternately expanding and contracting said expansible and contractible means when said buck and said head are in pressing relation.

3. A garment press comprising, cooperative pressing elements disposed to be moved into and out of telescoped relation with each other, expansible and contractible means carried by one of said elements, means actuated by the movement of said elements into telescoped relation for expanding said expansible and contractible means, and means for alternately expanding and contracting said expansible and contractible means when said cooperative pressing elements are in telescoped relation.

4. A garment press comprising, a form upon which a piece of work may be carried, a second form, means for moving said forms into and out of pressing relation, and means for alternately moving different portions of one form toward and from the other form while said forms are in pressing relation to press a piece of work carried by one of said forms.

5. In a garment press including, in combination, a plurality of pressing surfaces, means for moving said plurality of pressing surfaces into and out of opposed relation, pressure actuated means for expanding and contracting certain positions of said surfaces, control means operable upon the movement of said plurality of pressing surfaces into opposed relation to initiate operation of said pressure actuated means, and means for maintaining a minimum expanding force upon certain portions of said expanding and contracting surfaces.

6. In a garment press comprising, in combination, a plurality of pressing surfaces, means for moving said plurality of pressing surfaces into and out of opposed relation, certain of said pressing surfaces including expansible and contractible compartments, pressure means connected to said compartments, and pressure control means operable to relatively vary the pressure in the various compartments and thereby the force exerted against the surface opposing each compartment.

7. In a garment press, a plurality of cooperating pressing elements, means for moving said elements into and out of opposed pressing relation, said elements including a plurality of separately inflatable members, pressure means connected to said inflatable members, and means for controlling the inflation and deflation of said members, said control means being operable to synchronize the inflation of certain of said inflatable members with the deflation of certain other of said inflatable members.

8. The structure of claim 7, wherein the means for moving said elements into and out of opposed pressing relation includes a vertical rod and a cylinder mounted to slide axially upon said rod.

9. The structure of claim 7, wherein the means for moving said elements into and out of opposed pressing relation includes a vertical rod, a cylinder mounted to slide axially upon said rod, a piston fixed upon said rod within said cylinder adjacent the top of the cylinder when it is in its lowermost position, and means for admitting air under pressure between the upper cylinder head and the top of the piston to force the cylinder and cooperating pressing elements into opposed pressing relation position.

10. The structure of claim 7, wherein the means for moving said elements into and out of opposed pressing relation includes a vertical rod, a cylinder mounted to slide axially upon said rod, a piston fixed to said rod within said cylinder adjacent the top of the cylinder when it is in its lowermost position, and means for admitting air under pressure between the upper cylinder head and the top of the piston to force the cylinder and cooperating pressing elements into opposed pressing relation position, and means to exhaust said pressure to allow the cylinder and elements to move from opposed pressing relation position.

11. In a garment press, a buck adapted to be inserted through a sleeve and receive and press the cuff, gusset and entire sleeve portion thereof, a cooperating head to receive said buck,

means for moving said respective parts into and out of pressing relation, said buck including expansible and contractible members, and means when said buck and head are in pressing relation to reciprocate opposed portions of the buck member to press the sleeve, gusset and cuff against the interior of the head.

12. A garment press including a sleeve receiving buck and a hollow head to receive and surround said buck, means operated by air under pressure to move said buck and head into and out of pressing relation, expansible and contractible members on the buck to press the sleeve against the interior of the head operated by air under pressure, manual means to actuate said moving means, and means to admit air under pressure to the buck members actuated by the entry of the buck within the head.

13. The structure of claim 12, wherein said means for actuating said moving means is provided with means cooperating with said last named means when the first named means has been actuated in one direction.

14. The structure of claim 12, wherein said manual means in one position admits air under pressure to impart movement in one direction, and in another position exhausts air to impart movement in the opposite direction.

15. The structure of claim 12 and means actuated as the buck is withdrawn from the interior of the head to exhaust the air from the buck.

16. A garment sleeve press operated by air under pressure including a sleeve buck having expansible and contractible pressing members mounted upon a carriage, a head to receive the buck, a cylinder mounted upon said carriage, a piston within the said cylinder, a stationary piston rod therefor passing through both ends of the cylinder, an air valve connected to a source of air under pressure adapted in one position to admit air under pressure within the cylinder at one side of the piston to move the cylinder and carriage to bring the buck into pressing relation with the head and in another position to exhaust the air from the cylinder to reverse the movement of the buck, and a manually actuated control for operating the said air valve.

17. The structure of claim 16, wherein a second air valve is provided upon the carriage connecting in one position air under pressure to the interior of said pressing members and in another position to an exhaust for the air under pressure therefrom.

18. The structure of claim 16, wherein a second air valve is provided upon the carriage connecting in one position air under pressure to the interior of said pressing members and in another position to an exhaust for the air under pressure therefrom, and means upon the control cooperating with the second air valve to admit air under pressure to the pressing members of the bucks after air under pressure has been admitted to the cylinder.

19. A manually actuated compressed air operated garment sleeve press including a base, two spaced-apart uprights mounted thereon, a piston rod mounted upon the base intermediate the uprights, a piston fixed upon said rod intermediate its length, a cylinder mounted for reciprocation upon the piston rod and about the piston thereon, a carriage mounted upon the cylinder, buck means mounted upon the carriage, buck receiving head means mounted upon said uprights, expansible and contractible pressing members upon said buck means, a manually actuated control for admitting air under pressure to said cylinder to move said buck means into pressing relation with the head means, and means to admit air under pressure to the said pressing members to press a portion of a shirt against the ironing surface upon the interior of said head means.

20. The structure of claim 19, wherein the means for admitting air under pressure to the pressing members includes a valve to admit air under pressure from the cylinder after the cylinder has moved the buck means into pressing relation with the head means.

21. The structure of claim 19, wherein the carriage mounts a valve in line with an actuating arm carried on said control when said control has been actuated to admit air under pressure to said cylinder to be engaged by said valve as the carriage approaches its end of movement to admit air under pressure to said pressing members.

22. The structure of claim 19, wherein the carriage mounts a valve in line with an actuating member carried upon said control when said control has been actuated to admit air under pressure to said cylinder to be engaged by said valve as the carriage approaches the end of its movement to admit air under pressure to said pressing members and to actuate said valve upon the carriage to exhaust the air under pressure from said pressing members as the carriage starts to move in the opposite direction.

23. In a garment sleeve press, a base, spaced-apart uprights mounted upon said base, a pair of sleeve bucks mounted upon a carriage, a pair of heads to receive the sleeve bucks mounted upon said uprights above said bucks, a cylinder mounting said carriage adapted for axial movement upon a piston rod and a piston for moving the bucks into and out of pressing relation with said heads, a source of air under pressure, an air valve on an upright adjacent a head, a second air valve upon the carriage below and in line with said first air valve, a manually actuating control for operating both valves, each buck carried on a hollow shaft rotatably mounted upon and in communication with a hollow transverse shaft in communication with said second air valve mounted upon the carriage, an expansible and contractible pressing member mounted upon the end of said buck supporting shaft, said pressing member adapted to receive the cuff and gusset of a shirt sleeve, each of said bucks including two expansible and contractible pressing members below the cuff and gusset pressing member arranged on opposite sides of the center shaft for pressing the shirt sleeves between the gusset and shoulder, the corresponding sleeve pressing members on the same side of each buck in communication with said valve upon the carriage, whereby when the carriage is in its lower-most position with both air valves closed and the manual control operated in one direction, air under pressure is admitted through the upper valve to the cylinder to move the bucks into pressing relation within the heads and as the carriage aproaches its upper end of travel to admit air under pressure through the second valve to equally and simultaneously expand the cuffs and gusset pressing members and to equally and simultaneously expand the sleeve pressing members whereby both sleeves of a shirt are simultaneously given precisely the same pressing finish.

24. The structure of claim 23, wherein an automatic duplex valve operated by air under pressure

is interposed between the sleeve pressing members and the second air valve to continuously and alternately admit air under pressure to and exhaust from the complementary sleeve pressing members as long as air under pressure is admitted through the second valve.

25. The structure of claim 23, wherein an automatic duplex valve operated by air under pressure is interposed between the sleeve pressing members and the second air valve to continuously and alternately admit air under pressure to and exhaust from the complementary sleeve pressing members as long as air under pressure is admitted through the second valve, and wherein, said duplex valve includes two cylinders connected to a common exhaust and each cylinder connected to the second valve, pistons in each cylinder movable to connect the second valve to the interior of said sleeve pressing members and to connect said sleeve pressing members to a common exhaust, means to alternately connect one cylinder to the complementary sleeve pressing members on each buck while the other cylinder connects the other pair of said complementary sleeve pressing members to the exhaust.

26. The structure of claim 23, wherein an automatic duplex valve operated by air under pressure is interposed between the sleeve pressing members and the second air valve to continuously and alternately admit air under pressure to and exhaust from the complementary sleeve pressing members as long as air under pressure is admitted through the second valve, and wherein said duplex valve includes two cylinders connected to a common exhaust and each cylinder connected to the second valve, pistons in each cylinder movable to connect the said second valve to the interior of said sleeve pressing members and to connect said sleeve pressing members to the common exhaust, means to alternately connect one cylinder to the complementary sleeve pressing members on each buck while the other cylinder connects the other pair of said complementary sleeve pressing members to the exhaust, and wherein said means includes an off-center snap-action mechanism.

27. The structure of claim 23, wherein an automatic duplex valve operated by air under pressure is interposed between the sleeve pressing members and the second air valve to continuously and alternately admit air under pressure to and exhaust from the complementary sleeve pressing members as long as air under pressure is admitted through the second valve, and wherein said duplex valve includes two cylinders connected to a common exhaust and each cylinder connected to the second valve, pistons in each cylinder movable to connect the said second valve to the interior of said sleeve pressing members and to connect said sleeve pressing members to a common exhaust, means to alternately connect one cylinder to the complementary sleeve pressing members on each buck while the other cylinder connects the other pair of said complementary sleeve pressing members to the exhaust, and wherein said means includes an off center snap-action mechanism actuated by the movement of a piston rod of a piston reciprocating in a cylinder by means connecting one side of the piston in the snap-action operating cylinder through a cylinder of the duplex valve to the said second air valve and at the same time connecting the other side of said piston through said second cylinder in said duplex valve to the common exhaust.

28. In a garment press, sleeve receiving bucks and buck receiving heads, means to move said bucks and heads into and out of pressing relation, each buck having two oppositely disposed expansible and contractible sleeve pressing members, control means for expanding the complementary members while contracting the other complementary members to simultaneously impart precisely the same pressing finish to both sleeves of a shirt, said means including a source of air under pressure and an automatic duplex valve continuously and alternately connecting one pair of complementary sleeve pressing members to the source of air under pressure while the other pair are connected to an exhaust and then connecting the second pair of complementary members to the source of air under pressure and the first pair of complementary members to the exhaust.

29. The structure of claim 28, wherein said last named means includes a snap-action actuator operated by air under pressure from a cylinder of the duplex valve to cut off air under pressure to that cylinder and to connect the other cylinder of said valve to the source of air under pressure.

30. The structure of claim 28, wherein said last named means includes a snap-action actuator operated by air under pressure from a cylinder of the duplex valve to cut off air under pressure to that cylinder and to connect the other cylinder of said valve to the source of air under pressure and wherein said actuator is reciprocated by the movement of a piston in a cylinder connected on the opposite sides of the piston to the opposite cylinders of the duplex valve.

31. In a garment press a sleeve receiving buck and a buck receiving head, means to move said buck and head into and out of pressing relation, said buck having a central hollow shaft pivotally mounted at one end on the carriage and supporting a cylinder in communication with the shaft at the other end, an expansible and contractible cuff and gusset pressing member mounted about said cylinder and in communication therewith, the opposite end of the hollow shaft being connected with the source of air under pressure, a piston mounted in said cylinder to reciprocate, a piston rod extending through the outer end of said cylinder, a spring member secured to the exterior of said piston rod adapted to engage and hold the cuff of a shirt about said pressing member when the piston is in its lowermost position.

32. The structure of claim 31, including means to admit air under pressure to said hollow shaft and cylinder as the buck is received within the head to expand the pressing member against the interior surface of the head and to admit air below the piston in the cylinder to carry the spring engaging the cuff out of engagement therewith before the pressing operation is completed.

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