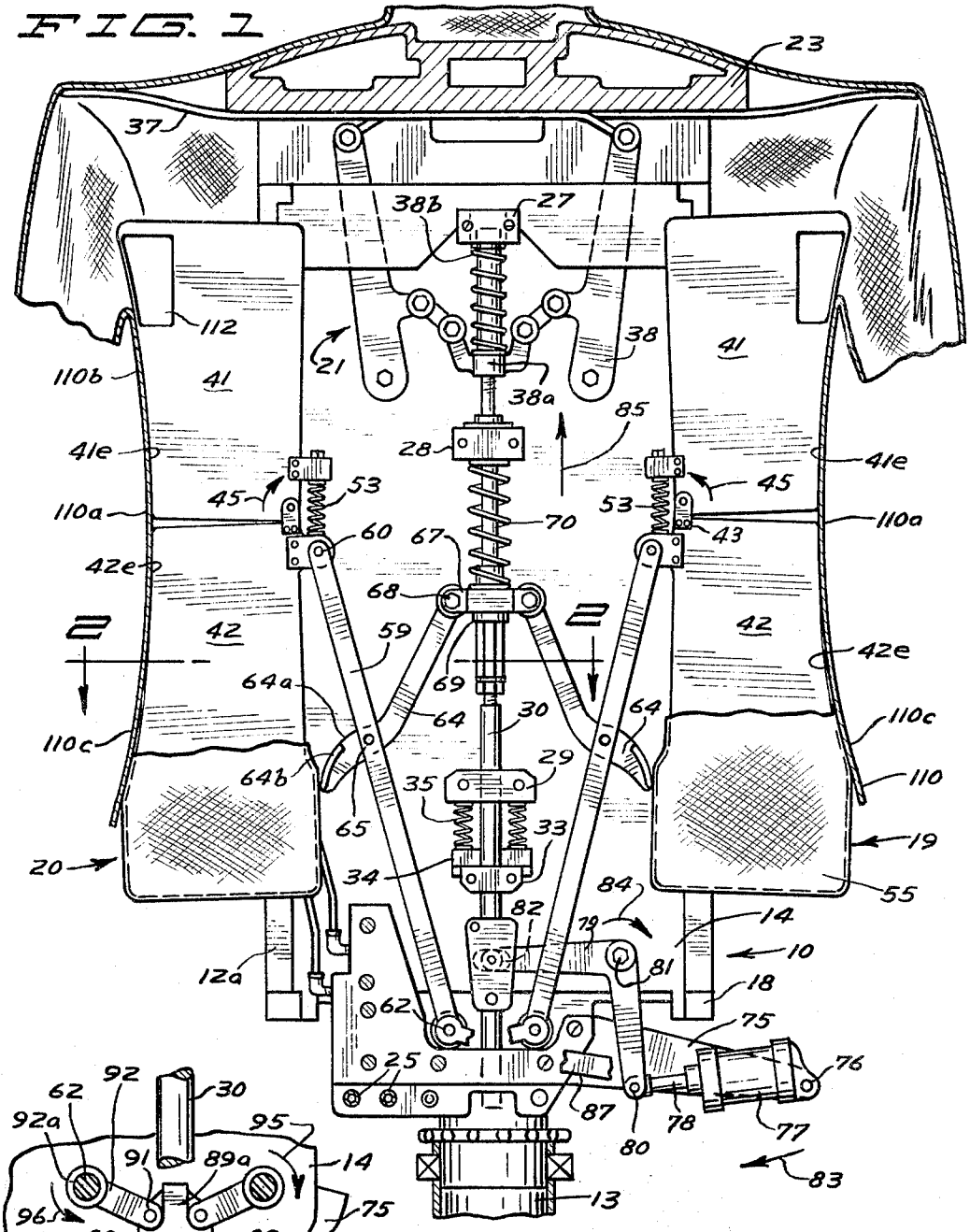
Sept. 20, 1966 C. E. PIILOLA 3,273,765

SHIRT BUCK APPARATUS

Filed March 22, 1965 2 Sheets-Sheet 1

FIG. 1



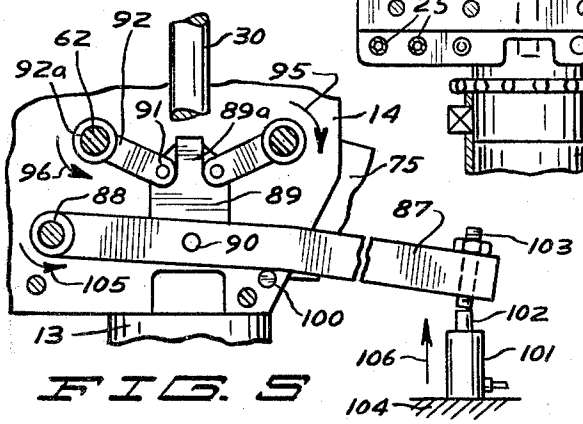


FIG. 5

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SHIRT BUCK APPARATUS

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FIG. 2

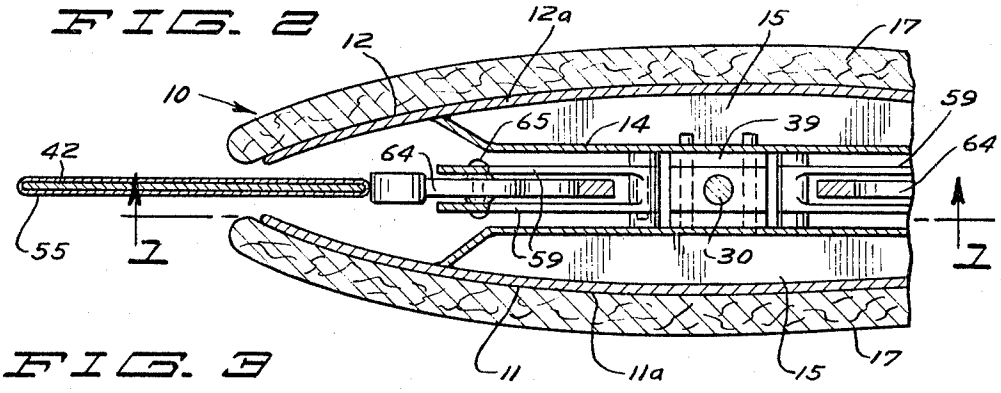
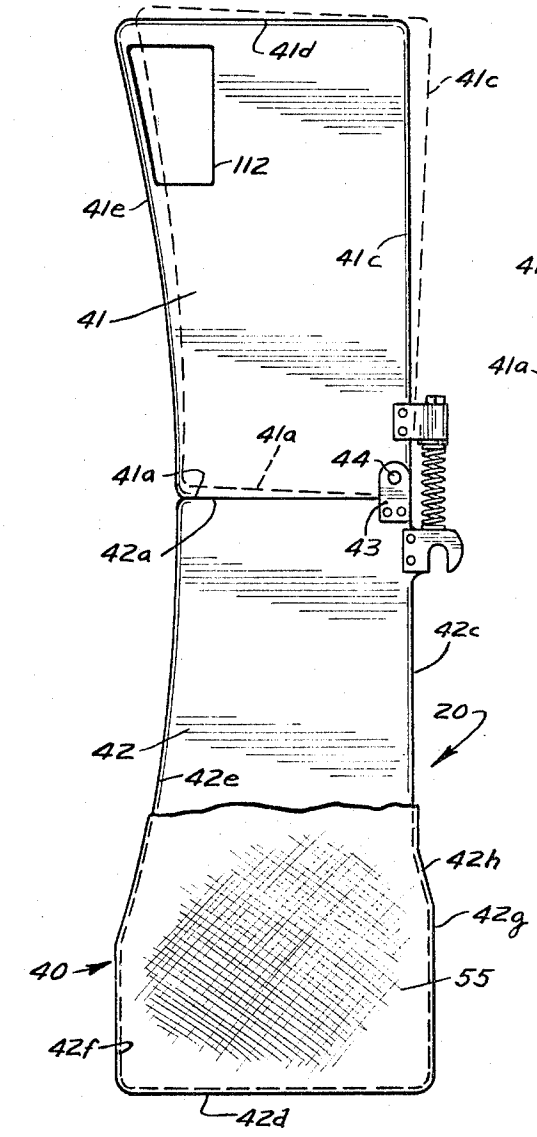


FIG. 3



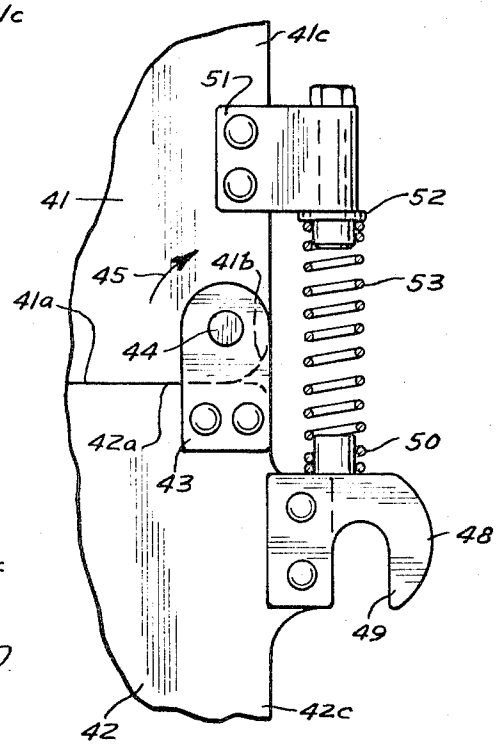


FIG. 4

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United States Patent Office 3,273,765
Patented Sept. 20, 1966

3,273,765

SHIRT BUCK APPARATUS

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Filed Mar. 22, 1965, Ser. No. 441,680
12 Claims. (Cl. 223—57)

This invention relates to new and novel improvements in shirt buck assemblies. More particularly, this invention relates to new and novel wing assemblies for a shirt buck that is of a construction to accommodate shirts of different sizes and of varying tapered waist portions.

Recently shirts having "tapered" waist portions have become much more popular. That is such shirts are substantially narrower in the waist than in the chest portion. As a result in laundries having shirt buck assemblies that include a pair of wings, each including a single metal plate, it has been impossible to properly tension the shirt from the bottom of the shirt to beneath the arm pits for varying sizes of shirts wherein the same buck assembly is utilized for pressing both tapered and non-tapered shirts. That is, metal wings of the prior art have not been able to properly accommodate both tapered and non-tapered shirts. In order to overcome this problem, this invention has been made.

One of the objects of this invention is to provide a new and novel buck assembly for achieving a better finish on the garment being pressed regardless of whether the garment has a non-tapered or a tapered waist portion. Another object of this invention is to provide a new and novel wing assembly for a shirt press having upper and lower portions movable relative to one another to accommodate shirts having waist portions of varying tapers and to provide a better finish on the pressed garment. An additional object of this invention to provide shirt buck having a new and novel wing assembly that includes a pair of metal wing plates that before and/or during the pressing operation will adjust to respectively accommodate both tapered and non-tapered shirts.

Other and further objects of the invention are those inherent in the invention herein illustrated, described and claimed, and will become apparent as the description proceeds.

To the accomplishment of the foregoing ends, this invention comprises the features hereinafter fully described and particularly pointed out in the claims, the following description setting forth in detail certain illustrated embodiments of the invention, these being indicative, however, of but a few of the various ways in which the principles of the invention may be employed.

The invention is illustrated by reference to the drawings in which corresponding numerals refer to the same part and in which:

FIGURE 1 is a vertical sectional view of the buck assembly of this invention, said view being generally taken along the line and in the direction of the arrows 1—1 of FIGURE 2 and showing the wing assemblies and sleeve support mechanism in an extended condition;

FIGURE 2 is a fragmentary horizontal cross sectional view of the buck assembly of this invention, said view being generally taken along the line and in the direction of the arrows 2—2 of FIGURE 1;

FIGURE 3 is an enlarged vertical view of a wing assembly of this invention, the wing plates being shown in a datum position in solid lines and in a tapered shirt pressing position in dotted lines;

FIGURE 4 is an enlarged fragmentary view of a portion of FIGURE 3 to more clearly illustrate the structure connecting wing plates together and for resiliently urging said plates to a datum position; and

FIGURE 5 is a somewhat enlarged fragmentary vertical view of base portion of buck assembly showing the structure for operating the wing assembles to a final pressing position and illustrating a piston cylinder combination at a pressing station for actuating such structure.

Referring in particular to FIGURES 1 and 2, the buck assembly generally designated **10**, is generally rectangular in vertical cross section except for the upper portion which is slightly curved. The assembly **10** includes two spaced, nearly identical, half frame sections; there being a front frame section **11** and a back frame section **12**, and a base member **13**. Base **13** is of a construction that may be mounted on conventional equipment, for example, on the buck support-transfer arm assembly of U. S. Patent 3,070,268, granted December 25, 1962.

Each of the half sections has a curved outer plate **11***a* and **12***a* respectively, the curvature of said plates being in a horizontal plane. A generally rectangular inner plate **14** having outwardly turned side flanges, a top spacer wall (not shown) and a bottom spacer wall (not shown) are welded to the inner surface of the respective outer plate to form a steam chest cavity **15** between the respective inner and outer plates.

The two half sections of buck are covered as one unit by a resilient padding and buck cover **17** with the exception of the bottom and an elongater vertical slot which is provided at either transverse side of the buck cover to have the wing assemblies, respectively, generally designated **19** and **20**, and sleeve supports generally designated **21** to extend outwardly therethrough. Also provided in the padding and buck cover are openings at the front and top for the tail clamp mechanism **34** and collar clamp (not shown).

Buck assembly **10** also includes a yoke buck member **23** attached to the frame section. A collar clamp (not shown) is mounted on the yoke buck member.

Lower portions of the frame sections are bolted to the upper portion of the base member which in part serves to hold the frame sections in spaced relationship. The yoke member likewise in part serves to hold the frame members in spaced relationship as do the lands **18** and other lands (not shown) which perform a similar function. The base member is provided with inlet and outlet ports **25** for conducting steam to the chest cavities of the yoke buck member and the frame sections and returning to condensate in a conventional manner.

Mounted intermediate the two half-sections of the buck are a plurality of vertically spaced bearing blocks **27**, **28** and **29**, each having a vertically extending aperture therein. The bearing blocks are bolted to the inner plate **14**, the bearing blocks being positioned to have respective apertures directly above one another, to serve to space the half-sections to absorb the pressure exerted against the half-sections during the pressing operation, and to mount the structure described below.

An operating rod **30**, which is made up of a plurality of threadingly connected sections is slideably extended into the aperture of the top bearing block **27**, slideably extended through the apertures in bearing blocks **28**, **29**, and slideably extended into an appropriate well provided in the base member **13**. A stop member **33** is secured to the operating rod in position to underlay the bifurcated end portions **34** of the tail clamp lever. Coil springs **35** are provided to have one end seat against the top surfaces of portions **34** to resiliently retain them in engagement with the stop member and the opposite ends bear against the bearing block **29** whereby the tail clamp is operated in a manner similar to that disclosed in the aforementioned patent. The sleeve extender structure **21** includes a pair of sleeve support members **37** which are moved to the extended position of FIGURE 1 and retracted by

sleever operating mechanism **38**. The operating mechanism **38** is substantially the same as that disclosed in U. S. Patent 3,070,268 and includes a block **38***a* secured to the operating rod **30** to move therewith and a coil spring **38***b* on the operating rod to have one end bear against block **27** and the opposite end bear against block **38***a*. Accordingly spring **38***b* resiliently urges the operating rod to a sleeve member extended position.

Referring now in particular to FIGURES 1, 3 and 4 the structure of the wing assemblies, **19** and **20** will now be set forth. Since each of the wing assemblies is of substantially the same construction, the description will be primarily directed to the wing assembly **20** which is illustrated in FIGURE 3. The wing assembly **20** is somewhat rectangular in vertical elevation and includes an upper plate **41** and a lower plate **42**. A bracket **43** is riveted to the opposite sides of the upper, transverse inwardly corner of the lower plate, a pivot member **44** being extended through the bracket to pivotally connect the adjacent lower, transverse inward corner of the upper plate to the lower plate. As may be noted in FIGURE 3, the plates are pivotally connected together such that their adjacent horizontal edges **41***a*, **42***a* can abut against one another along substantially their entire lengths. In order to permit the upper plate pivoting in the direction of the arrow **45** about the pivot **44** relative to the lower plate, the lower transverse inwardly corner of the upper plate is rounded at **41***b* (see FIGURE 4).

A tab **48** is riveted to the lower plate adjacent the bracket **43** to extend transversely inwardly toward rod **30** from the lower plate. The tab has a downwardly extending notch **49**, and has a stud **50** mounted thereon to extend upwardly therefrom. A bracket **51** is riveted to the upper plate to extend transversely inwardly and to be located vertically above tab **48**. The bracket **51** mounts a bolt and washer **52** vertically above stud **50**, there being a coil spring **53** that at one end seats against the washer **52** and at the opposite end extends around the stud **50** and bears against the tab **48**. Thus, the coil spring is located transversely inwardly of the pivot **44** and accordingly resiliently urges the upper plate **41** to pivot in a direction opposite arrow **45** relative to the lower plate. Through the provision of members **48**–**52**, the plates are resiliently urged to a position that their edges **41***a*, **42***a* are in abutting relationship.

The upper plate in a datum condition has a straight vertical inner edge **41***c*, a generally straight top edge **41***d* and an outer edge **41***e* which from its juncture with edge **41***d* is curved to more closely approach edge **41***c* as it extends toward its juncture with edge **41***a*. The bottom plate has an outer edge portion **42***e* that is curved in a manner corresponding to edge portion **41***e* except that it extends transversely outwardly in a downward direction toward its juncture with the generally vertical edge portion **42***f*. The lengths of edge portions **41***e*, **42***e* are approximately the same; and in a wing assembly datum condition, generally constitute a continuous extension of one another. The lower plate has a bottom edge **42***d* that extends from edge portion **42***f* to vertical inner edge portion **42***g* which in turn extends to a substantial higher elevation than edge portion **42***f*. The inner edge of the lower plate from **42***g* curves transversely outwardly at **42***h* and then extends vertically upwardly along edge portion **42***c*. Edge portion **42***c* in a wing assembly datum condition, except for a protrusion adjacent tab **48**, constitutes a straight line extension of edge **41***c*.

A fabric cover **55** is provided to cover plates **41**, **42**. Preferably the fabric is of a type that will more readily stretch in a vertical direction than a transverse direction in order to permit plates **41**, **42** pivoting relative one another, and still at the same time preclude having to provide excess fabric so that there would be wrinkles in the fabric cover when the upper and lower plates are in the datum solid line condition of FIGURE 3. Such fabric is sold under the trademark "Formatex."

Since the structure for mounting the wings and moving them between the extended position of FIGURE 3 and a retracted position is substantially the same except for being located on transversely opposite sides of the operating rod (the elongated axis of the rod being the same as the buck vertical axis), for the most part only the structure for moveably mounting the wing assembly **20** will be described. To mount a wing assembly, there is provided a pair of parallel elongated wing support arms **59** that at their upper end portions are connected by a pivot member **60**, said pivot member extending through the notch **49** of the tab **48**. The arms **59** extend downwardly and inwardly toward the operating rod to be pivotally secured to the depending portion of the frame section inner plates **14** that extend to a lower elevation than the outer plates **11***a*, **12***a* and the steam chest bottom walls. That is, the pivot member **62** pivotally extends through the depending portions of both the inner plates and outwardly of one of the inner plates to mount structure to be described hereinafter.

An offset portion **64***a* having a rounded edge **64***b* to slideably bear against a portion of the fabric **55** that abuts against edge portion **42***g* is formed on the lower end of the operating link **64**. Link **64** extends between adjacent support arms **59** and is pivotally connected thereto by a pivot **65**. The pivot **65** is located intermediate pivots **60**, **62** and is more closely adjacent pivot **60** than pivot **62**. The rounded end **64***b* in bearing against the wing assembly helps to maintain the wing assembly in a general vertical condition, but still permits the wing assembly to tilt to adjust for the various shape shirts as will become more apparent hereinafter.

The upper end of the operating link extends between the transverse outer ends of a pair of parallel support bars **67** and is pivotally connected thereto by pivot member **68**. The operating rod has an enlarged diametric flange portion **69** located intermediate bearing blocks **28**, **29** that is of sufficient diameter to abut against the lower edges of the support bars **67**, it being noted that the support bars **67** extend transversely outwardly of the operating rod on either side thereof. Further to be noted is that there is a pivot member **68** at opposite ends of the support bars for retaining the support bars in proper spaced relationship, each pivot member **68** mounting an operating link **64**. Thus, bars **67** are held by pivot member **68** so that the bars are vertically slideable relative to the operating rod but cannot vertically move relative the operating rod to a lower elevation than flange **69**. To resiliently retain bars **67** in abutting relationship with flange **69**, there is provided a coil spring **70** on the operating rod which at one end bears against bars **67** and at the opposite end bears against the bearing block **28** to resiliently urge the bars **67** in a downward direction.

In order to move the operating rod upwardly from the position illustrated in FIGURE 1, to retract the wing and sleeve support members, there is provided a horizontally elongated arm **75** that at one end is bolted to the base member **13**. A horizontal stud **76** is mounted on the opposite end of arm **75** which in turn pivotally mounts one end of the cylinder **77** of a piston cylinder combination. The aforementioned piston-cylinder combination also includes a piston rod **78** which is pivotally connected to the outer end of crank rod **79** by a pivot member **80**. The central portion of the crank arm is pivotally connected to a buck inner plate by a pivot member **81**. The opposite bifurcated end of the crank arm extends on either side of the operating rod, the bifurcated portions having generally horizontally elongated slots through which pivot member **82** is extended. The pivot member **82** also extends through an aperture in the operating rod, a bearing (not shown) being provided on pivot member **82** and in the aforementioned aperture.

The aforementioned piston cylinder combination **77**, **78** is a one way acting combination, which upon application of a pressure to the cylinder forces the piston (not

shown and thereby the piston rod 78 to move in the direction of the arrow 83. This movement causes the crank arm to pivot about pivot member 81 in the direction of the arrow 84 to thereby move the operating rod in an upward direction (arrow 85) against the downward urging of springs on the operating rod.

In order to apply the proper finish to the shirt there is provided structure to cause the wings to further expand just prior to the time the presser heads pressingly engage the shirt dressed on the buck. This structure is primarily shown in FIGURE 5 and includes an elongated arm 87 that at one end is pivotally connected to the base member 13 by a pivot member 88. The arm 87 extends outwardly from the base member in the same direction as arm 75 and is located on the horizontal opposite side of the base portion to which arm 75 is attached.

An appropriately shaped cam 89 at its lower end is pivotally connected to intermediate portion of arm 87 by a pivot member 90, arm 87 having an upwardly opening groove into which the lower end portion of cam 89 is extended. Due to the provision of the aforementioned groove (not shown) the cam may pivot a limited amount about the axis of pivot member 90. The cam has oppositely faced cam surfaces 89*a*, each cam surface bearing against a cam follower pin 91. Each cam follower 91 is mounted on the outer end of a bifurcated linkage 92, linkage 92 having a boss portion 92*a*. Boss portion 92*a* is mounted on and keyed to the outer end of pivot member 62. In this connection it is to be noted that there is a pivot member 62 for each pair of adjacent wing support arms 59, each pair of wing support arms being keyed to the respective pivot member 62. As a result of providing the aforementioned structure, the wing support arms are free to pivot about pivot members 62 in the direction opposite arrows 95, 96 respectively, but can pivot only a limited amount in the direction of arrows 95, 96 respectively from that illustrated in FIGURE 5, due to the cam followers abutting against the cam surfaces 89*a*. The cam followers are thus limited in downward movement since the arm 87 is limited in pivotal movement about pivot member 88 by a stop 100 mounted on the base member to engage the bottom edge of arm 87.

In order to apply a final expanding and equalizing pressure to the wing assemblies, there is provided a piston cylinder combination 101, 102 at the pressing station 104. When the buck 10 is at the pressing station, the adjustment bolt 103 threaded into the outer end of arm 87 is directly above the piston rod 102. The application of air pressure to the cylinder 101 causes piston rod 102 to move in an upward direction to engage the bolt 103 and thereby pivot arm 87 about pivot member 88 in the direction of the arrow 105. This pivotal movement of arm 87 moves the cam 89 to move upwardly into position to engage the follows 91 (assuming that the followers have not already been engaged by the cam surfaces 89*a*) and thus cause the linkages 92 and the wing support arms to pivot in a direction that the arm upper ends move away from one another.

The structure of the invention having been described, the operation thereof will now be set forth. For purposes of facilitating the description of the operation, it will be assumed that the buck assembly is mounted on conventional transfer mechanism (not shown) for transferring the buck assembly between a loading station and a pressing station. Assuming that the buck assembly is at loading station and that it is in a datum condition, air pressure in cylinder 77 holds the piston rod 78 in an expanded condition from that illustrated in FIGURE 1, and thereby through crank arm 79, retain the operating rod in an elevated condition from that illustrated. When the operating rod is in an elevated condition, the sleeve support members 37 will be in a retracted condition (the outer end being more closely adjacent than that illustrated in FIG. 1); the upper ends of the wing support will be spaced from but substantially more closely adjacent the intermediate portion of the operating rod; bars 67 will be bearing against the flange 69 of the operating rod; horizontal arm 87 will be resting against stop 100; and the cam follower pins 91 will be bearing against the respective cam surfaces of cam 89. At this time a garment, for example a shirt, is dressed on the buck in a manner similar to that described in U.S. Patent 2,834,523.

After the garment has been dressed on the buck, appropriate controls (not shown) are operated to exhaust the air from the cylinder 77 thereby permitting the piston rod 78 to move in the direction opposite arrow 83. Since the coil springs 38*b* and 70 bear against bearing blocks that are fixedly attached to the frame section inner plates and also respectively bear against block 38*a* which is fixedly attached to the operating rod and bars 67, the operating rod is moved in a downward direction (opposite arrow 85). The downward movement of the operating rod causes the upper end of the linkages to which the sleeve support members are connected to move together, and as a result cause the sleeve support members 37 to move to a position such as illustrated in FIGURE 1. At the same time, due to the operating rod being lowered, the bars 67 are also forced in a downwardly direction by spring 70 and thereby move the operating links such that the wing support arms are respectively pivoted about pivots 62 in the direction of the arrows 95, 96 respectively. This movement of the links 64 cause the upper ends of each pair of support arms to move transversely away from one another and the buck central vertical axis and thereby move the wing assemblies to bear against the shirt 110 to draw it somewhat taut across the girth of the shirt. The shirt is normally drawn taut prior to bars 67 moving into engagement with flange 69. If each wing assembly had a single wing plate with a curved edge 41*e* and 42*e*, with different tapered shirts near the area at 110*a*, or 110*b*, 110*c*, the shirt would be taut and the shirt area 110*c*, 110*b* or 110*a* respectively would not be drawn sufficiently taut. However, with the split wing plate 41, 42 of this invention, and assuming that the wing plates initially engage shirt portions 110*b*, 110*c* without drawing the areas 110*a* sufficiently taut, the spring 70 urging against the bars 67 will transversely urge the portion of the wing plates adjacent edges 41*c*, 42*c* transversely outwardly. This urging will result in the upper plate 41 pivoting in the direction of the arrow 45 about pivot 44 relative plate 42 until the wing plates 41, 42 have sufficiently separated such that the corners of the wing plates adjacent the junctures of lines 42*a*, 42*e* and 41*a*, 41*e* will bear against the shirt in the area 110*a* to also draw this area taut. This in part results from the inner action of coil springs 70 and 53.

After the buck has been moved to the pressing station in a conventional manner, the outer end of arm 87 is directly above the piston rod 102. During the time, or before the presser heads have started to move together to press the shirt on the buck, air under pressure is applied to the bottom of cylinder 101 which in turn through piston rod 102 pivots arm 87 in the direction of arrow 105 to thereby elevate the cam 89. At the time the wings initially moved apart (initial movement of rod 30 downwardly), the cam pins 91 were elevated somewhat above the cam surfaces 89*a*. The upward movement of the cam brings the cam surfaces into engagement with the cam followers 91 and moves the linkages to move the upper ends of each pair of wing support arms further outwardly relative to one another to somewhat increase the tension applied to shirt by the wing edges 41*e*, 42*e* and to equalize the pressure applied by the wing assemblies to opposite sides of the shirt. However, this increased tensioning does not tear the shirt since the counteracting forces of the shirt restrain outward movement of the wings and through the operating arm and operating links 64 move the block 67

upwardly of the flange 69 against the resilient action of spring 70. Thus, with a smaller size shirt, the bars 67 will be moved upwardly above flange 69 a greater distance than would a larger size shirt. Further, this additional upward movement of cam followers 91 imparted through actuating piston 101 is relatively small and the air pressure in cylinder 101 is limited.

After the shirt has been pressed, a control (not shown) for cylinder 101 is actuated to exhaust cylinder 101 and through a coil spring in the cylinder (not shown), the piston rod 102 is retracted. Additionally, air under pressure is applied to cylinder 77 to force the piston rod 78 in the direction of the arrow 83. This results in the operating rod being elevated in the direction of the arrow 85 against the action of springs 70, 38*b* to thereby transversely retract the wing assemblies and the sleeve support members. During the retraction of the wing assemblies, the coil springs 53 urge the adjacent wing plates 41, 42 to the solid line position of FIGURE 3.

To be mentioned, the upper, transverse outer, corner of each wing plate 41 is provided with a cutout 112 at the area of the juncture of the seams at the arm pit. This provides an opening into which the seams may move into to prevent overpressing this portion of the multitude of layers of shirt in this area.

As may widely be apparent in the embodiments of this invention may be made without departing from the spirit and scope thereof, it is to be understood that I do not limit myself to the specific embodiments herein.

What is claimed is:

1. In a shirt buck assembly including a shirt buck frame elongated in a vertical direction and having a vertical axis, an elongated wing support arm on each side of said axis, each arm having an upper end portion and a lower end portion, means for pivotally connecting said lower end portions to the frame, and means movably mounted on the frame and pivotally connected to the support arms for selectively moving said upper end portions horizontally away from one another and toward one another, the improvement being a wing assembly for each support arm conprising an upper wing plate having a generally straight lower edge and a lower transverse inner corner portion, a lower wing plate having a generally straight upper edge and an upper transverse inner corner portion, means for pivotally connecting said corner portions together to permit movement of the upper plate relative the lower plate about a horizontal axis, said upper and lower edges lying in substantially the same plane, means attached to one of said plates for pivotally mounting the last mentioned plate on the upper end portion of the adjacent support arm and means connected to at least one of said plates for resiliently urging the one of said plates relative the other plate to a position that said upper edge abuts against said lower edge.

2. The apparatus of claim 1 further characterized in that each wing assembly upper and lower plate has a transverse, generally vertically extending outer edge portion, said outer edge portions being arcuately curved to, in a direction approaching the upper plate lower edge, extend more closely adjacent said vertical axis.

3. The apparatus of claim 2 further characterized in that the means for pivotally mounting a plate on a support arm is attached to the said lower plate corner portion.

4. The apparatus of claim 1 further characterized in that the means for pivotally mounting a plate on a support arm is attached to the lower plate, and that the resilient urging means is attached to the upper plate and includes a spring acting against the last mentioned pivotally mounting means.

5. The apparatus of claim 4 further characterized in that the last mentioned pivotally mounting means is attached to said lower plate corner portion.

6. A garment buck assembly for properly tensioning tapered and non-tapered shirts dressed thereon comprising a buck frame that is generally elongated and rectangular in vertical elevation, said frame having oppositely faced frame half sections, means for mounting and holding said frame sections in spaced relationship, an elongated operating rod, means for moveably attaching said rod to the frame between said half sections to extend generally vertically adjacent the central vertical axis of the frame, means on the frame for selectively elevating said rod a limited amount to a datum position, means connected to the frame for urging said rod downwardly from said datum position, a pair of elongated wing support arms each having a lower end portion and an upper end portion, means for pivotally attaching said lower end portions to the frame on transverse opposite sides of said rod, a wing assembly for each support arm, each wing assembly including an upper plate and a lower plate, each plate having an edge abutable against the edge of the other, a vertically extending transverse inner edge and a vertically extending transverse outer edge engagable with a shirt dressed on said frame, means for connecting said upper and lower plates together to pivot relative one another about a horizontal axis adjacent the plates inner edges, and means attached to the plates for pivotally mounting the plates on the upper end of the respective support arm and resiliently urging said plates to pivot relative one another about said horizontal axis to a position the first mentioned edge of each plate abuts against the other, a linkage arm for each wing assembly having an inner end portion and an outer end portion, first means vertically slideably mounted on the operating rod for pivotally mounting the inner end portion of the linkage arms on opposite sides of said rod, said operating rod having means for limiting the vertical slideable movement of the first means in one direction, means attached to the frame for resiliently urging the first means to move relative said rod in a direction opposite said one direction, means for pivotally connecting an outer end portion of each linkage arm to an intermediate portion of the support arm that is in the same side of the rod as the pivotal connection of the linkage arm to the rod, each linkage arm lower end portion having a portion abutable against the respective lower plate to move the plate transversely outward of the rod.

7. A garment buck assembly for properly tensioning tapered and non-tapered shirts dressed thereon comprising a buck frame that is generally elongated and rectangular in vertical elevation, an elongated operating rod, means for moveably attaching said rod to the frame to extend generally vertically adjacent the central vertical axis of the frame, means on the frame for selectively elevating said rod a limited amount to a datum position, means connected to the frame for urging said rod downwardly from said datum position, a pair of elongated wing support arms each having a lower end portion and an upper end portion, means for pivotally attaching said lower end portions to the frame on transverse opposite sides of said rod, a wing assembly for each support arm, each wing assembly including an upper plate and a lower plate, each plate having an edge abutable against the edge of the other, a vertically extending transverse inner edge and a vertically extending transverse outer edge engageable with a shirt dressed on said frame, means for connecting said upper and lower plates together to pivot relative one another about a horizontal axis adjacent the plates inner edges, and means attached to the lower plate adjacent its inner end for pivotally mounting the lower plate on the upper end of the respective support arm, a spring having one end bearing against the last mentioned means, and means attached to the upper plate for seating the opposite end of said spring so that said spring urges said plates to pivot relative one another about said horizontal axis to a position the first mentioned edge of each plate abuts against the other, a linkage arm for each wing assembly having an inner end portion and an outer end portion, first means vertically slideably mounted on the operating arm for pivotally mounting the inner end portions of the linkage

arm on opposite sides of said arms, said rod having second means for limiting the vertical slideable movement of the first means in one direction relative the remainder of the rod, means attached to the frame for resiliently urging the first means to move relative said rod in a direction opposite said one direction, means for pivotally connecting an outer end portion of each linkage arm to an intermediate portion of the support arm that is on the same side of the rod as the pivotal connection of the linkage arm to the rod, each linkage arm lower end portion having a portion abutable against the respective lower plate to move the plate transversely outward of the rod.

8. A garment buck assembly having a vertical axis comprising a buck frame that is generally elongated and rectangular in vertical elevation, a base mounting said frame, a pair of wing assemblies, each wing assembly including an upper wing plate and a lower wing plate, the upper plate having a lower edge, the lower plate having an upper edge, each plate having an inner edge that intersects the respective previously mentioned edge to form a corner portion, and means for connecting said plates to permit limited movement of the plates relative one another, the last mentioned means includes means for pivotally connecting the upper plate and lower plate corner portions so that one plate can pivot relative the other about a generally horizontal axis and means connected to at least one of said plates for resiliently urging said one plate to pivot about said horizontal axis to a position relative the other plate that said upper edge and lower edge are more closely adjacent one another, and means mounting said assemblies on said frame for movement in opposite directions between an extended position and a retracted position relative said axis, the wing assembly mounting means including a wing support arm for each wing assembly, each arm having an upper end portion and a lower end portion, means for pivotally connecting one lower end portion to the frame on each side of said vertical axis, means for pivotally connecting the upper end portion of each arm to said lower plate corner portion of the lower plate that is on the same side of said vertical axis as the pivot means connecting the respective arm to the frame and means mounted on the frame and connected to each arm for selectively pivoting said arms about their pivotal connection to the frame to alternately move the arm upper portions away from said vertical axis and toward said vertical axis.

9. A garment buck assembly having a vertical axis for properly tensioning tapered and non-tapered shirts dressed thereon comprising a buck frame that is generally elongated and rectangular in vertical elevation, a base mounting said frame, a pair of wing assemblies, and means mounting said assemblies on said frame for movement in opposite directions between an extended position and a retracted position relative said axis, each wing assembly including an upper plate and a lower plate, the upper plate having a lower edge, the lower plate having an upper edge, and each plate having an inner edge that intersects the respective previously mentioned edge to form a corner portion and an arcuately curved outer edge more remote from said axis than the inner edge, and means for connecting said plates to permit limited movement of the plates relative one another, the last mentioned means including means for pivotally connecting the upper plate and lower plate corner portions to permit relative pivotal movement of the upper and lower plates between an upper edge and a lower edge abutting position and an upper edge and lower edge separated condition, and spring means connected to at least one of said plates for resiliently urging said one plate relative the other plate to pivot about said horizontal axis to said upper edge and lower edge abutting position.

10. A garment buck assembly having a vertical axis comprising a buck frame that is generally elongated and rectangular in vertical elevation, a base mounting said frame, a pair of wing assemblies, and means mounting said wing assemblies on said frame for movement in opposite directions between an extended position and a retracted position relative said axis, the wing assembly mounting means including arm means for ecah wing assembly movably mounted on the frame and connected to the respective wing assembly to support it and move it between a wing assembly extended position and a wing assembly retracted position, and means on the frame and connected to the arm means for selectively moving the arm means to move the wing assemblies between said positions, the arm moving means having portions abuttable against the wing assemblies in spaced relation to the connections of the arm means to the wing assemblies to coact with the arm means in moving the wing assemblies to their extended positions, each wing assembly including an upper wing plate and a lower wing plate, the upper plate having a lower edge, the lower plate having an upper edge, and each plate having an inner edge that intersects the respective previously mentioned edge to form a corner portion, and means for connecting said plates to permit limited movement of the plates relative to one another, the last mentioned means includes means for pivotally connecting the upper plate and lower plate corner portions so that one plate can pivot relative the other about a generally horizontal axis and means connected to at least one of said plates for resiliently urging said one plate to pivot about said horizontal axis relative the other plate to a position that said upper edge and lower edge are more closely adjacent one another.

11. A garment buck assembly having a vertical axis comprising a buck frame that is generally elongated and rectangular in vertical elevation, a base mounting said frame, a pair of wing assemblies, each wing assembly including an upper wing plate and a lower wing plate, the upper wing plate having a lower edge, the lower wing plate having an upper edge, each plate having an inner edge that intersects the respective previously mentioned edge to form a corner portion, means for connecting said corner portions together to permit pivotal movement of the upper plate relative the lower plate and retain the plates relative one another so that said upper and lower edges lie in substantially the same plane, means connected to at least one of said plates for resiliently urging said one plate to pivot about said horizontal axis to a position relative the other plate that said upper edge and lower edge are more closely adjacent one another, arm means on the frame and connected to only one plate of each wing assembly for mounting and moving said assemblies in opposite directions between an extended position and a retracted position relative said axis and means mounted on the frame and connected to the arm means for selectively moving the arm means to move the wing assemblies between said positions.

12. A garment buck assembly having a vertical axis for properly tensioning tapered and non-tapered shirts dressed thereon comprising a buck frame that is generally elongated and rectangular in vertical elevation, a base mounting said frame, a pair of vertically elongated wing assemblies, each wing assembly including an upper wing plate and a lower wing plate, the upper plate having an upper and a lower edge, the lower plate having an upper and a lower edge, each plate having an inner edge that intersects the respective upper plate lower edge and lower plate upper edge to form a corner portion, the horizontal dimensions of said plates adjacent the lower plate lower edge and upper plate upper edge being greater than the corresponding dimensions adjacent the lower plate upper edge and the upper plate lower edge, a fabric cover on said upper plates that is more readily stretchable in a vertical direction than a transverse direction, means for pivotally connecting said corner portions with said plates in substantially the same plane to permit one plate pivoting relative the other about a horizontal axis, and means connected to said plates for resiliently urging said plates to pivot relative one another about said horizontal axis to a position that said upper plate lower edge and lower plate upper edge are more closely adjacent one another, and

means mounted on the frame for supporting said wing assemblies and selectively moving said assemblies in opposite directions between an extended position and a retracted position relative said axis while permitting at least one plate of each assembly to pivot relative the other plate of the same assembly to relative positions that the upper plate lower edge and lower plate upper edge will be more remotely separated from one another.

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