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COLLAR PRESSING APPARATUS

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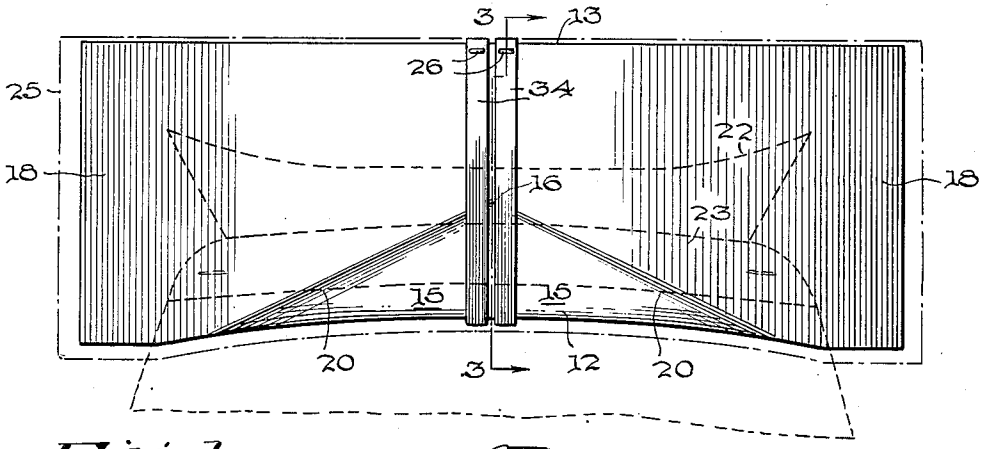


FIG. 1.

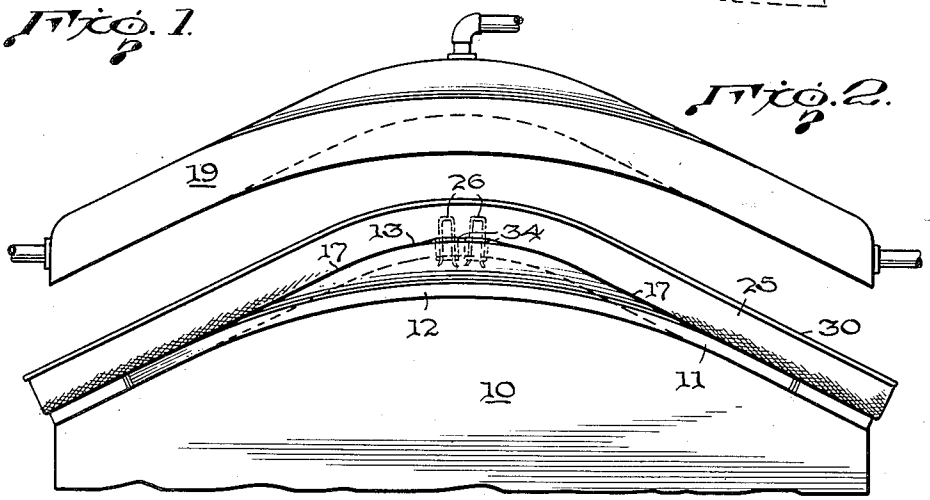


FIG. 2.

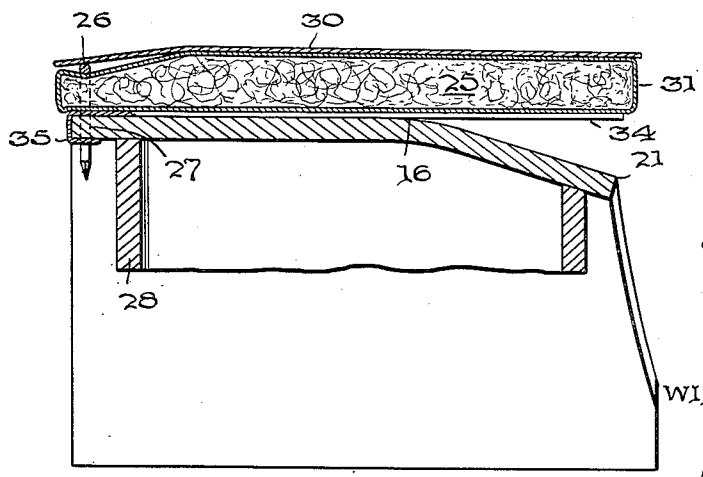


FIG. 3.

INVENTOR.
WILLIAM J. ASHER

BY Leech & Radue
ATTORNEYS

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COLLAR PRESSING APPARATUS

William J. Asher, Colorado Springs, Colo.

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7 Claims. (Cl. 223—52.1)

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This invention relates to collar pressing apparatus, and more particularly to power steam presses or the like for pressing separate and shirt-attached collars of the starched or semi-starched type.

It is a general object of the present invention to provide a novel and improved collar pressing apparatus which facilitates the locating of the collar on the pressing surface to insure it being properly pressed between complementary pressing surfaces for so shaping it that there is adequate tie sliding space provided between the folds of the collar when turned.

More particularly it is an object of the invention to provide a novel collar pressing buck and complementary pressing head configured to relatively shorten the neck band portion of the collar with respect to the visible or outer fold thereof to provide added tie sliding space when folded, together with means to insure and simplify the proper positioning of the collar on the buck by the laundry worker.

A further object of the invention comprises means for so configuring the resilient pad on a collar buck, of the collar shaping type, that it appears to the operator as a conventional convex buck thereby facilitating the placing of the collar thereon.

An important feature of the invention resides in the arrangement of spring means for ready attachment to existing collar bucks of the type described and holding means therefor which may if desired simultaneously hold and position the cushion or pressing pad on the buck, and which spring means arranges the pad surface more nearly to the configuration of the conventional buck surface until engaged by the complementary pressing head.

Other and further features and objects of the invention will be more apparent to those skilled in the art upon a consideration of the accompanying drawing and the following specification, wherein is disclosed a single exemplary embodiment of the invention, with the understanding that its application is not limited to the particular structure illustrated but applies to others designed to function in a similar manner.

In said drawing:

Fig. 1 is a plan view of a collar buck for use on a pressing machine, and constructed in accordance with the present invention, the resilient pad or cushion being illustrated in dotted lines as positioned by the spring means forming a portion of the present invention;

Fig. 2 is a front elevation of a collar buck and

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the attachments provided by this invention shown with its complementary pressing head spaced above the same and with the buck pad elevated along its forward edge by the springs; and

Fig. 3 is a vertical central section through the high portion of the buck taken on line 3—3 of Fig. 1 and illustrating in more detail and on an enlarged scale one form of means for fastening the springs to the buck body and illustrating the body cover.

Most starched separate collars and attached shirt collars are pressed in the open position on steam pressing machines, which are usually provided with an appropriate buck for the purpose and a complementary pressing head, at least the latter of which is heated by steam. The standardized shape for these bucks is convex in the direction of the length of the collar. They are flat in the direction of the height of the collar and in general conform to an arcuate section of a cylinder. These bucks have a relatively large radius so that the curvature is not great and are normally covered with a heavy pad of suitable resilient material over which is placed a readily changeable protective cloth or cover. On this cloth surface the collar is positioned, opened out flat, with the outer face of the outer fold uppermost where it is engaged by the smooth metal under surface of the pressing head to achieve the desired gloss. Because of the nature of the construction of the collar the result of pressing one on such a machine and then folding or bending it at the junction of the inner and outer folds is to cause tight engagement, particularly at the back, between these folds, making it extremely difficult to introduce a necktie and subsequently to slide it, in the process of tying or adjusting it.

In my prior patent, No. 2,407,125, granted September 3, 1946, for Buck for Ironing Collars, I have disclosed a suitably shaped buck and complementary pressing head which contracts the neck band portion of the collar relative to the outer fold thereof so that when the collar is turned or bent to fit the neck adequate space is left to receive a tie. Such a buck instead of having a plain convex surface has a compound surface of longer radius at the front edge than at the rear for the purpose explained in that patent. This variation in the surface of the buck and of the fitted pad thereon seems to confound the average help in laundries and they are not capable of or do not try to properly place the collar in position thereon to achieve the full benefits of the carefully worked out buck shape.

One of the principal features of the present invention comprises means for lifting the forward edge of the resilient pad in such a manner that its outer surface appears substantially like that of the conventional buck, whereby the operator positions the shirt collar or the separate collar thereon in exactly the same manner as on the type buck with which he is fully accustomed. Thereafter, in bringing the head down, the shape thereof presses the buck pad into position on the specially shaped buck surface and contracts the collar band portion while retaining the outer fold of the collar to its full size, thereby achieving the desired results.

Referring now to the drawings, and first to Fig. 2, the buck is generally illustrated at 10 and may comprise a steam tight box of heavy metal having vertical and parallel front and rear walls and connecting end walls closed by a suitable bottom plate (not shown). The top plate 11 providing the working surface is of heavy metal approximately one-fourth of an inch thick and is generally arcuate or convex in shape, curved in the direction of the length of the collar which is to be placed thereon. As seen in this figure, the forward edge 12 has a longer radius of curvature than the rear edge 13, providing a warped surface area 15, best seen in Fig. 1. The radius of the rear edge 13 is applied to that portion of the plate extending as far forward as the position 16, so that the rear portion of the buck has in its center a more or less conventional convex shape, meeting on fore and aft lines near 17, at each side, the tangential flat areas 18 below these junctions. The forward central portion of the surface comprising the area 15 slopes downwardly to the front a maximum amount in the center and progressively decreasing to the sides, as clearly seen and indicated by the lines 20 in Fig. 1. These indicate a progressive increase in radius of curvature from 16 forward. The lowest forward position is shown at 21 in Fig. 3 and the point of change at 16. The top plate 11 overhangs the front, back and side walls as seen in Figs. 2 and 3.

A pressing head 19, preferably of the hollow steam heated variety is positioned in any suitable pressing machine for cooperation with the buck and has its under surface shaped complementary to that of the buck.

If the collar is placed on the buck in somewhat the manner illustrated in Fig. 1, then the outer or normally visible fold 22 takes a bend over the short radius rear portion of the buck similar to that on a conventional buck, whereas the inner fold or neck-band portion 23 partakes of the longer radii of area 15 and when compressed thereon by the complementary head 19 is constricted and reduced in length.

The heavy resilient pad 25 which forms the cushion element for the buck is made somewhat larger in area than the plan of the buck surface, as clearly shown in Figs. 1 and 2. It is simply held in position in the usual manner by wires at the ends and since there is a tendency for it to slide forward down the slope additional fastenings of a similar nature may be applied at the rear edge near the center. Thus one or more staples 26 of sturdy construction may be passed through the rear edge thereof near the center and through suitable holes 27 near the edge of the plate 11 where it overhangs the back plate 28 of the buck. These staples are pushed in tightly, as shown, to compact the rear portion of the pad body and are thus below its main surface and do not interfere with or cause wear on the cover cloth 30, which is principally used to keep a clean surface for presentation to the articles being laundered. This is normally held in position by a puckering string, not shown.

As shown in Fig. 3, the top plate of the buck supports the pad throughout at the ends and at the center portion from the rear face to the positions indicated by lines 20 in Fig. 1, but beyond that the pad will normally drop down conforming the surface of the buck, resulting from its cooperation with the pressing head, thus presenting a warped upper surface for positioning the collar. This makes it somewhat difficult for the operator to properly adjust the same thereon, so that in accordance with the present invention the forward edge 31 of the pad is maintained elevated during the collar positioning so that the top surface at the center is straight, as seen in Fig. 3. To the operator it presents a picture similar to that of the more or less conventional buck.

The forward central part of the pad is held in the position shown in Fig. 3 by spring means, and preferably the requisite number of fore and aft extending flat leaf springs 34 are provided near the buck center for the purpose. On new bucks they may be received in channels in the surface although this is not necessary, because of the depth and resilience of the pad above them. On old or existing bucks they are merely mounted on top of the surface and may be positioned by having their rear ends bent down and then forwardly to engage about the overhanging portion of the buck top, as seen at 35 in Figure 3. The rear ends of each of them is provided with a pair of perforations one near each edge in the top reach and a corresponding pair in the turned under portion whereby to accommodate fasteners which pass through the buck plate 12. As shown these are the staples which hold the pad in position but preferably separate, laterally spaced, fastening means are provided for the pad and springs whereby either may be replaced without interfering with the other. By engaging each spring in two places, both at the rear, it is prevented from rotating about the fastening means, over the surface of the buck. The springs, of course, are of such strength as to hold the pad to the flat position shown in Fig. 3 during the operation of positioning the collar and are sufficiently resilient to be pressed down against the warped surface of the buck by the action of the complementary shaped pressing head when forced by the pressing mechanism of the machine.

The application of springs for holding the pressing pad spaced from certain designated surfaces of a pressing buck is not restricted to the specific showing herein but may be used in other cases to provide results comparable to those achieved by the use of the specific shaping of the buck depicted herein.

I claim:

1. Apparatus for machine pressing of starched collars in open position comprising a buck having a working surface of generally convex shape longitudinally, said surface being progressively reduced in curvature transversely from the portion adapted to engage the junction of the inner and outer folds of the collar to the front portion engaging the lower edge of the inner fold thereof whereby the latter is less stretched than the former, a heavy resilient pad covering said working surface, a straight spring secured to the buck near its rear edge and extending horizontally over the transverse center thereof to support the front of the pad above the buck surface to sub-

stantially the same curvature as the rear portion thereof and a pressing head shaped to force the pad into engagement with the buck surface throughout.

2. Apparatus for collar pressing comprising a buck having a working surface longer and wider than the corresponding dimensions of a flattened collar and being generally convex longitudinally but having an area intermediate its length of progressively decreasing curvature from a position near the center of said surface to the forward edge thereof, a spring secured near the rear edge of the buck, extending transversely over and in engagement with said surface to said position and being progressively spaced from said area toward the front edge, a resilient pad covering said area, secured at the rear edge to said buck and normally held suspended above said area by said spring to facilitate the placing of the moist collar thereon for pressing by a heated head having its under surface complemental to the said buck surface.

3. A buck for a collar pressing machine comprising a supporting and shaping surface adapted to receive a collar in its open condition, said surface being convex longitudinally and so warped transversely as to adjust the relative shapes of the outer and neck-band folds of the collar that the latter is shortened in respect to the former whereby when folded the collar presents additional necktie space, a resilient pad covering said surface, and resilient means mounted beneath the pad to hold it in an unwarped condition during the placing of a collar thereon.

4. Collar pressing apparatus including in combination, a buck element having an upper surface generally shaped to provide a longer surface for engaging the outer fold of a flattened out collar than for engaging the neck-band portion, a resilient pad element covering said surface, means to engage and lift portions of the pad element adapted to engage the neck band portion of a collar from the said buck element surface to provide similar engaging surfaces on the pad element for both collar portions applied thereto and a pressing head having a surface complemental to that of the buck element for engaging the collar and pad element and conforming them to the buck element configuration, said means to engage and lift portions of the pad element from the buck element surface being attached to one of the elements.

5. Apparatus for machine pressing of starched collars in open position comprising a buck having a working surface of generally convex shape

longitudinally, said surface being progressively reduced in curvature transversely from the portion adapted to engage the junction of the inner and outer folds of the collar to the front portion engaging the lower edge of the inner fold thereof whereby the latter is less stretched than the former, a resilient pad covering said working surface, means cooperating with the buck and pad to resiliently support the part of the pad overlying the area of changing curvature and hold it away from the working surface of the buck to cause said pad part to substantially conform in curvature to that of the remainder of the pad resting on the buck surface and a pressing head having a surface substantially complemental to that of the buck and adapted to engage the collar and pad to conform them to the buck configuration.

6. Apparatus for collar pressing comprising a buck having a working surface longer and wider than the corresponding dimensions of a flattened collar and being generally convex longitudinally, a resilient pad covering said surface, means mounted between the buck surface and pad and acting to normally support only the forward central portion of the pad elevated above the buck surface, and a pressing head having its working surface complemental to that of the buck to press the pad into conformity therewith.

7. A collar pressing buck for cooperation with a complementary pressing head and having an upper or pressing surface generally convex throughout the main part of its area and having a central peripheral area lower and of greater radius of curvature than abutting portions, a resilient pressing pad covering said whole pressing surface, securing means clamping an edge of the pad to the buck, and resilient means biasing the portion of the pad extending over said central peripheral lower area away from the pressing surface so that the whole exposed face of the pad conforms to the generally convex shape of the main part of the buck surface.

WILLIAM J. ASHER.

REFERENCES CITED

The following references are of record in the file of this patent:

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