May 1, 1956 R. G. McLAGAN 2,743,853

PADDING FOR SLEEVE PRESSING MACHINES

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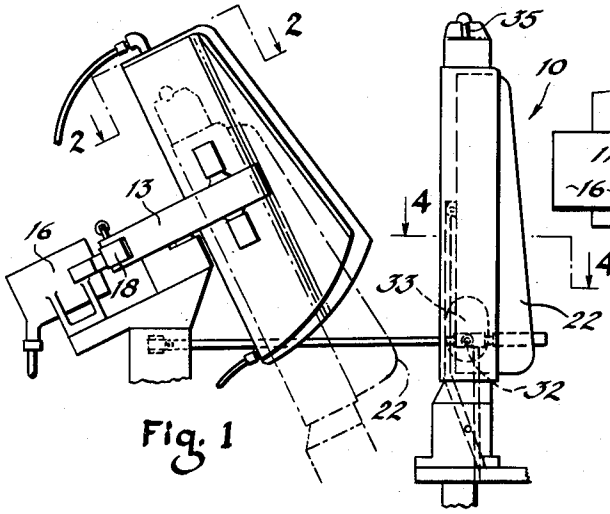


Fig. 1

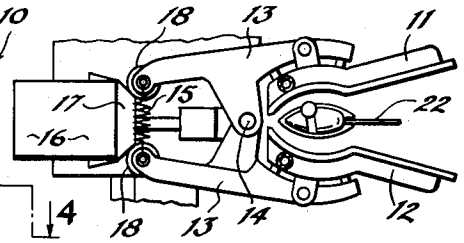


Fig. 2

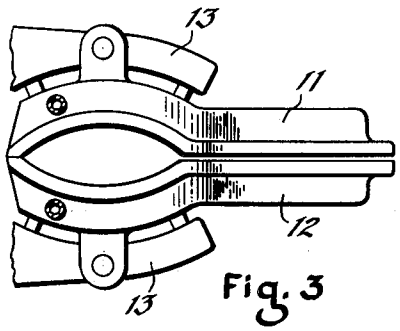
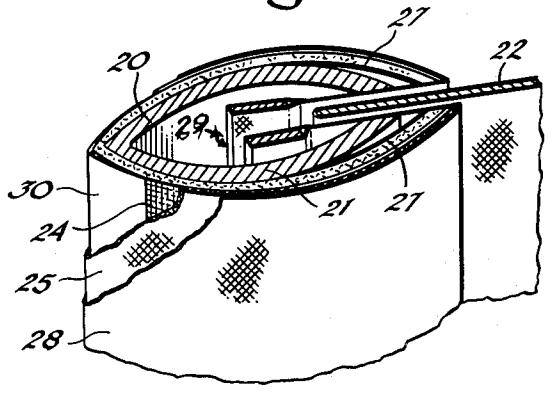


Fig. 3

Fig. 4



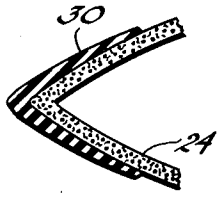


Fig. 5

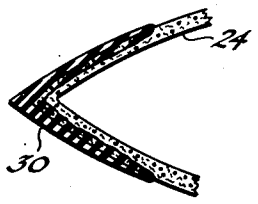


Fig. 6

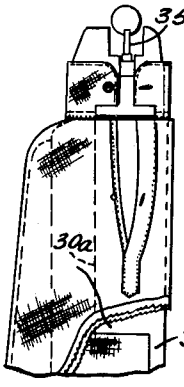


Fig. 7

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PADDING FOR SLEEVE PRESSING MACHINES

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Application November 6, 1952, Serial No. 319,106

3 Claims. (Cl. 223—57)

This invention relates to improvements in padding for the sleeve-supporting bucks of sleeve pressing machines.

The invention has for its primary objects the provision of sleeve buck padding which includes an edge element that materially improves the quality of the sleeve pressing operation, and which padding element is characterized by its structural simplicity, its inexpensive nature, and the ease and durability of its association or assembly with the other parts of the padding.

Further objects of the present invention, and certain of its practical advantages, will be referred to in or will be evident from the following description of one embodiment of the invention, as illustrated in the accompanying drawings, in which

Fig. 1 is a side elevational view of portions of a sleeve pressing machine in which the sleeve-supporting bucks thereof (only one of which is shown) are provided with padding having the present improved edge elements;

Fig. 2 is a cross-sectional view, showing the sleeve-supporting buck of Fig. 1 between its two cooperating pressing members, the view being on the line 2—2 of Fig. 1 and said pressing members being in their open or separated positions;

Fig. 3 is a fragmentary cross-sectional view, similar to Fig. 2 but on an enlarged scale, showing the two pressing members of Fig. 2 in their closed or pressing positions, the sleeve-supporting buck being omitted;

Fig. 4 is a detail cross-sectional view, on an enlarged scale, of the sleeve-supporting buck of Figs. 1 and 2, the view being on the line 4—4 of Fig. 1;

Fig. 5 is a like cross-sectional view, on a still larger scale, showing the improved edge element of the present padding and a portion of the padding part to which said edge element is secured, the edge element being in its partially cured condition;

Fig. 6 is a view similar to Fig. 5 and showing the padding edge element in its final or completely cured condition; and

Fig. 7 is a side elevational view of one of the two sleeve-supporting bucks, showing the edge element thereof forwardly extended at its upper portion so as to underlie the placket of the sleeve which is supported on said buck.

Before the here illustrated padding, with its improved edge element, is specifically described, it is to be understood that the present invention is not limited to what is here illustrated and/or described, as padding embodying the present invention may take other forms and as the edge element of such padding may be secured to or assembled with other parts of the padding by different means or in different ways. It also is to be understood that the terminology or phraseology herein used is for purposes of description and not of limitation, as the scope of the present invention is denoted by the appended claims.

Although padding embodying the present invention may be used with the sleeve-supporting bucks of various types of sleeve pressing machines, there is here illustrated,

for the disclosure of one embodiment of the present invention, portions of a sleeve pressing machine of the structural character of the machine described and claimed in my co-pending application, Serial No. 184,035 filed September 9, 1950, now Patent No. 2,629,522, dated February 24, 1953, to which reference may be had, if desired.

So far as its description is here necessary or desirable, said sleeve pressing machine includes two laterally spaced and generally upright sleeve-supporting bucks movable in unison by suitable means, under the control of the machine operator, into and out of cooperating pressing engagement with correspondingly spaced pairs of pressing members. Inasmuch as the two sleeve-supporting bucks are of duplicate form, and inasmuch as the two pairs of cooperable pressing members also are of duplicate form, only one such sleeve-supporting buck **10**, and only the two pressing members **11** and **12** for cooperation therewith, are here shown and described.

As best shown in Fig. 2, the two pressing members **11** and **12** are mounted upon the front end portions of a pair of levers **13** pivotally interconnected at **14** intermediate their ends and having their rear ends connected by a coiled spring **15**, the purpose of which is to normally hold the two pressing members in an open or laterally spaced relationship, as in Fig. 2, for the reception therebetween of the sleeve-supporting buck **10**. To move said pressing members to their closed or pressing positions as in Fig. 3, the sleeve pressing machine includes a piston **16** having a wedge-shaped front end part **17** for cooperative engagement with a pair of rollers **18** on the rear ends of the levers **13**. As will be readily understood, upon forward movement of the piston **16** (movement to the right in Fig. 2), the pressing members **11** and **12** will be forced toward one another into their closed or pressing positions, and upon rearward movement of said piston, the two pressing members will be automatically swung by the spring **15** to their normal, open or laterally spaced positions.

As best shown in Fig. 4, the sleeve-supporting buck **10** includes a hollow metal body which consists of a pair of side walls **20** and **21** of outwardly bowed or convex form in cross section. At their rear longitudinal edges (their left hand edges in the accompanying drawings), the two side walls **20** and **21** are integrally or otherwise suitably joined or united in a V-forming manner, but at their front longitudinal edges, the two side walls are spaced apart to provide a vertically disposed slot for the reception of a correspondingly disposed wing member **22**. By means not here necessary to be described, said wing member may be forwardly projected varying distances through said slot for sleeve-expanding purposes, and releasably held, of course, in any desired projected position.

Like the sleeve buck padding of my co-pending application Serial No. 194,964, filed November 10, 1950, now Patent No. 2,679,339, dated May 25, 1954 and to which reference may be had, if desired, the present padding for the sleeve-supporting buck **10** includes a relatively thick resilient inner layer **24** of commercially available matted material, of the general nature of steel wool, and an outer layer **25** of flannel or other relatively soft material. The two layers have, of course, a width sufficient to enable them to completely embrace the U-shaped metal body of the buck and a length sufficient to enable them to extend from the upper end of such metal body to the lower end thereof.

To enable the sleeve to be more smoothly pressed adjacent the body slot through which the wing member **22** projects, the side walls **20** and **21** of such body have secured thereto a pair of resilient metal strips **27**, as in the aforesaid application Serial No. 194,964. As shown

in Fig. 4, the rear longitudinal edge portions of said strips 27 are welded or otherwise suitably secured to the outer surfaces of the body side walls 20 and 21 substantially midway of the front and rear edges of such walls, and the front longitudinal edge portions of said strips are not only outwardly spaced from the front longitudinal edge portions of said body side walls but also, project forwardly therebeyond.

As further shown in Fig. 4, the longitudinal front edge portions of the two padding layers 24 and 25 lie alongside the outer surfaces of the resilient metal strips 27 and terminate at or adjacent the front longitudinal edges of such strips. As is usual, a cover cloth 28, of canvas or other smooth surfaced fabric material, is provided for the underlying layers of padding, and to automatically maintain said cover cloth in a taut and wrinkle-free condition, the side edge portions of such cover cloth are secured to a pair of vertically disposed members 29 arranged within the U-shaped metal body of the buck and which, as fully disclosed in my aforesaid application Serial No. 194,964, are spring urged in a rearward direction.

Although the pressing members 11 and 12 are shaped to closely embrace the buck 10 for sleeve-pressing purposes, it has been difficult to obtain a well-pressed finish of the sleeve at the rear edge portion thereof because of the tendency of the padding to "round out" at the rear edge of the metal body of the buck, even though such body edge is of V-shape in cross section and the adjacent portions of the pressing members meet in a V-forming manner.

In my aforesaid application Serial No. 194,964, a V-shaped metal strip is interposed between those portions of the two padding layers which extend along the rear edge of the metal body of the buck. Although the use of such a metal strip improves the finish of the sleeve at the rear edge portion thereof, said metal strip cannot be depended upon to consistently provide a good pressing contact at the rear of the buck, primarily because of its lack of resiliency and the necessary recovery characteristics. Moreover, the support and the maintenance of such a metal strip in longitudinal alignment with the rear edge of the metal body of the buck present rather troublesome problems.

In order to provide a dependable pressing contact between the rear edge portions of the buck 10 and the adjacent portions of the cooperating pressing members 11 and 12, and thereby to produce a well pressed finish of the sleeve at the rear edge portion thereof, the present padding includes an improved edge element 30.

As shown in Figs. 4, 5 and 6, such edge element comprises a vertically disposed V-shaped strip of resilient material, such as a Buna type synthetic rubber, which is secured to the outer surface of the inner padding layer 24 in longitudinal alignment with the rear edge of the metal body of the buck. Although this edge element may be made in flat form and later caused to assume a V-shape in cross section by its assembly or association with the metal body of the buck, the element is preferably extruded or otherwise initially formed as a V-shaped strip.

After being initially formed or subsequently cut to the proper length, namely, that of the rear edge of the metal body of the buck, the edge element 30 is applied to that portion of the inner padding layer 24 which overlies the rear edge of said buck body. The outer padding layer 25 and the cover cloth 28 are then applied, with the side edge portions of the cover cloth being secured to the take-up strips 29 for the retention of the padding and the cover cloth in assembly with the metal body of the buck.

Preferably, the edge element 30 is applied to the padding layer 24 while the material of such element is in a partially cured condition, with the final curing of such material taking place when the buck 10 is in pressing engagement with its cooperating pressing members 11 and 12. Inasmuch as said pressing members are heated for sleeve-pressing purposes, the heat of such members can be utilized for the final curing of the material of said edge element, (a period of twenty minutes being usually sufficient for the purpose), and by having the final curing of such material take place when the pressing members 11 and 12 are in pressing engagement with the buck 10, said material can be molded, by the heat and the pressure of the pressing members 11 and 12, into an external shape or contour which directly conforms to the pressing surfaces of the two pressing members when such members are in pressing position. As a result, a proper pressing contact for the rear edge portion of a sleeve is not only provided at the rear of the buck but also, such pressing contact remains effective for the production of a well pressed finish for a very long time, due to the elasticity and recovery characteristics of the material of which the edge element 30 is made.

During the final curing of the material of said edge element, some of such material flows into and becomes firmly bonded with the metal mesh of the underlying padding layer 24, as shown in Fig. 6. The edge element is thus securely anchored to such padding layer, for proper and durable disposition along the V-shaped longitudinal rear edge of the buck body, as will be readily understood.

To enable a sleeve to be pressed up to the shoulder seam thereof, regardless of the length of the sleeve, operator-controlled means is provided in the present machine (the machine of my aforesaid application Serial No. 184,035) to raise or lower the buck 10 as it is moved into pressing engagement with its cooperating pressing members. Associated with such means is a measuring pointer 32, Fig. 1, which is repeatedly tapped against the sleeve on the buck, as more fully disclosed in my aforesaid application Serial No. 184,035. In time, this results in indentation and breakdown of the inner layer of padding in the region where such tapping occurs.

In the present padding, the inner padding layer 24 is strengthened and re-enforced in the region 33 of the tapping by the use of some of the same material of which the edge element 30 is made, such as a Buna type synthetic rubber. The material is applied to the padding layer 24 in the region 33 thereof while such material is in a partially cured state, and by the use of heat and pressure, the curing of the material is not only completed but the material is caused to flow into and become firmly bonded with the metal mesh of said padding layer. Thus, the material is effectively held in the region where the padding 14 requires re-enforcement from the tapping effects of the pointer 32.

At the upper end of the buck 10, a cuff-holding means 35 is provided which need not be here described. As is well known, the sleeve of a man's shirt is provided just below the cuff thereof with a multi-layer placket which requires additional pressure if it is to be pressed and dried in the same time as other portions of the sleeve.

To provide such additional pressure for such multi-layer sleeve placket, the edge element 30 of the present padding can be forwardly extended at the upper end portion of the element, as at 30*a*, Fig. 7, so as to underlie such placket, as will be readily understood. In addition to providing the extra pressure needed for such placket, the yieldability of the material of the extension of the edge element 30 will afford protection for the placket buttons with which some sleeves are provided.

To those skilled in the art to which the present invention relates, further features and advantages of the present improved padding will be evident from the foregoing description of one embodiment of the invention.

What I claim is:

1. In a pressing machine a sleeve-supporting buck having an elongated body including two transversely convex wall portions joined along two adjacent longitudinal edges to provide a V-shaped edge portion extending substantially

the full length of said body, padding for said body comprising a layer of matted material completely overlying said wall portions, and an element superimposed on that part of said layer along and adjacent to said edge portion, said element being V-shaped in transverse section to overlie and conform in contour to said edge portion, said element being formed from rubber material and extending laterally towards but short of the opposite side of said body remote from said edge portion.

2. A sleeve-supporting buck as defined in claim 1 wherein the resilient material of the V-shaped element permeates the matted material of the padding and is permanently bonded thereto.

3. A sleeve-supporting buck as defined in claim 1 wherein the V-shaped element is formed from synthetic rubber.

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