Dec. 9, 1952 S. A. OBITZ 2,621,141

METHOD OF COVERING AN IRONING ROLL

Filed April 19, 1949 2 SHEETS—SHEET 1

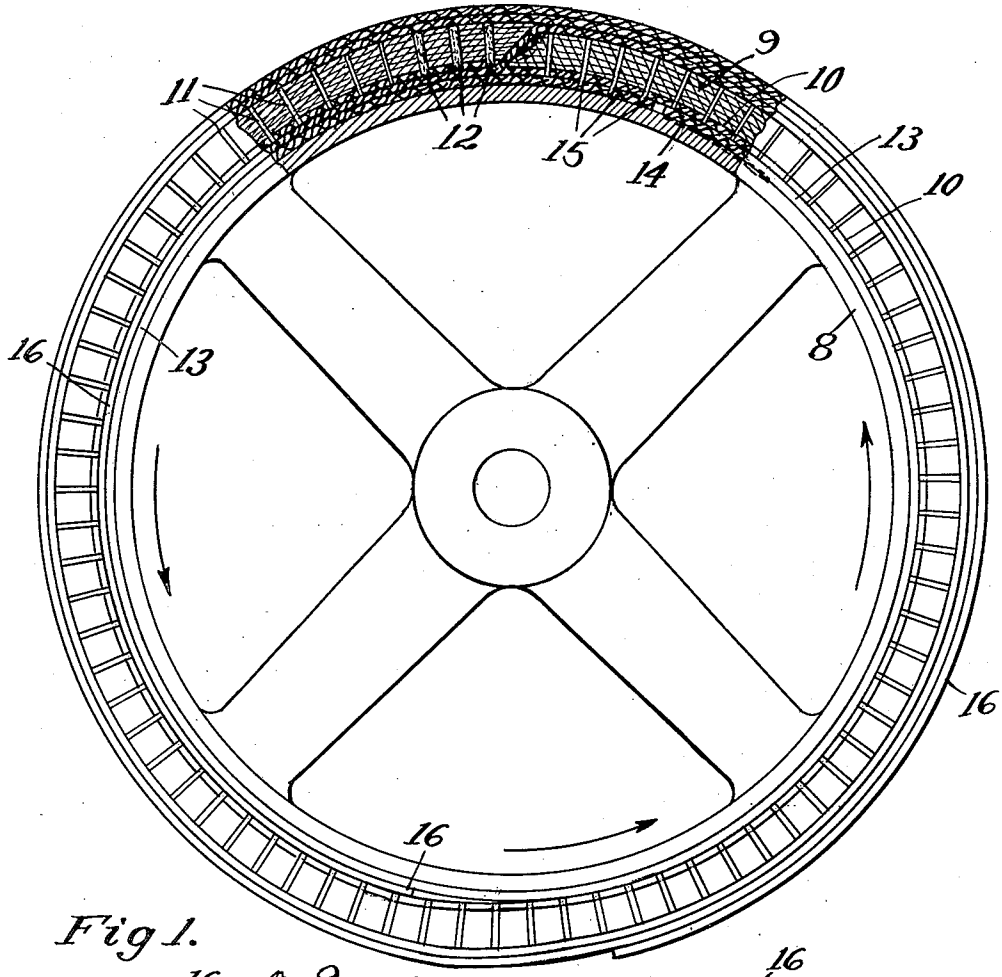


Fig 1.

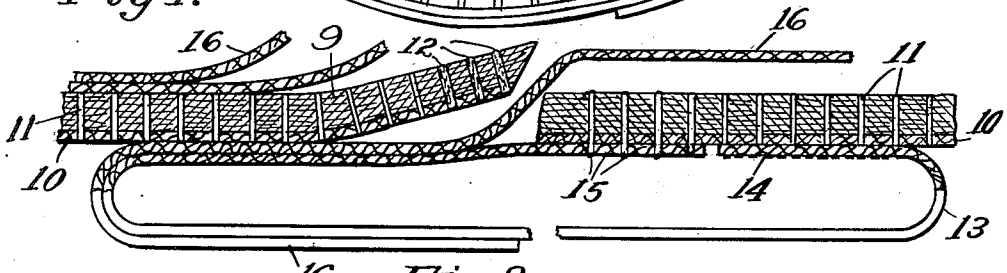


Fig 2.

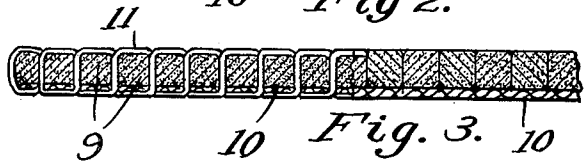


Fig. 3.

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METHOD OF COVERING AN IRONING ROLL

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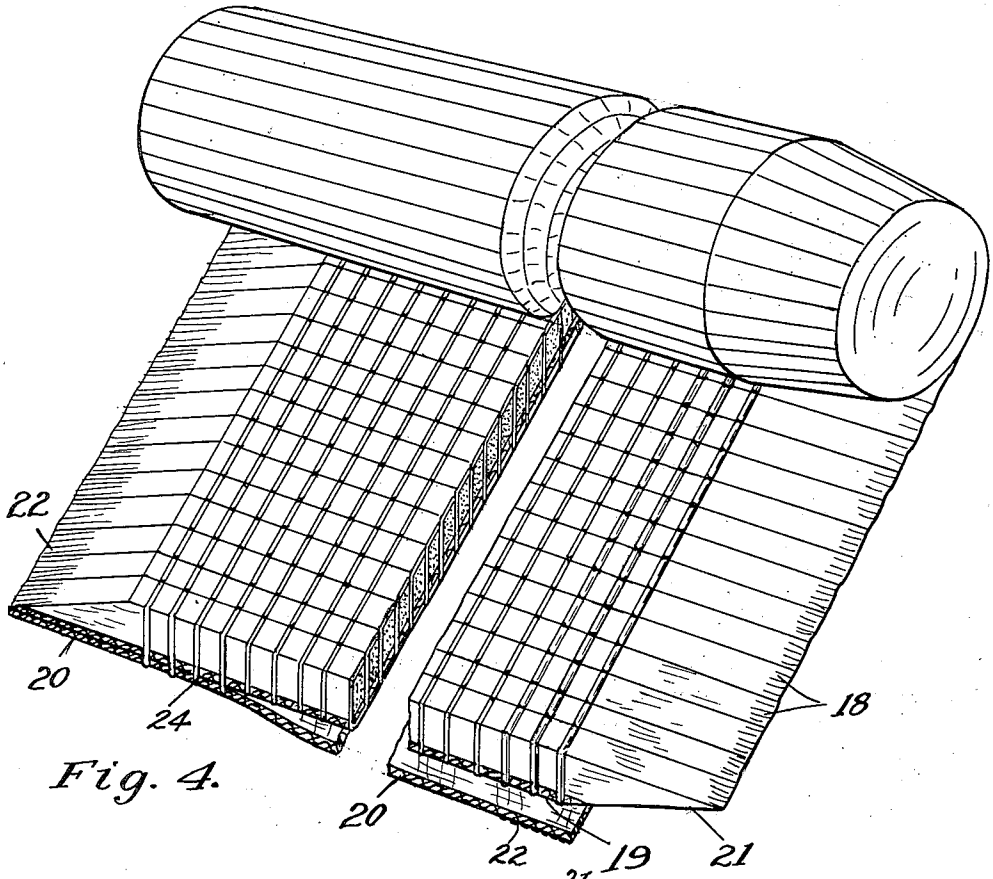


Fig. 4.

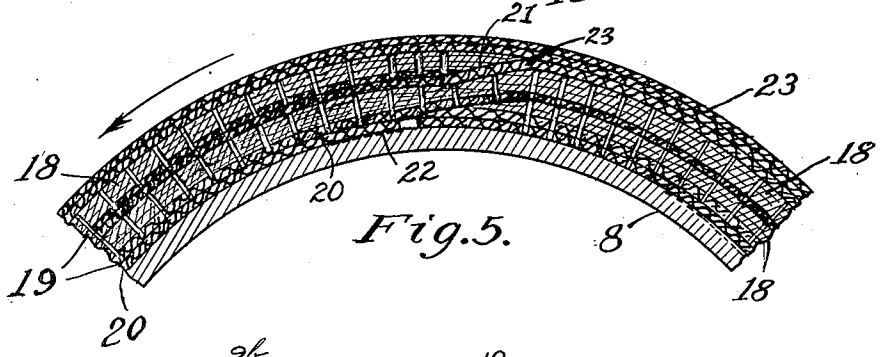


Fig. 5.

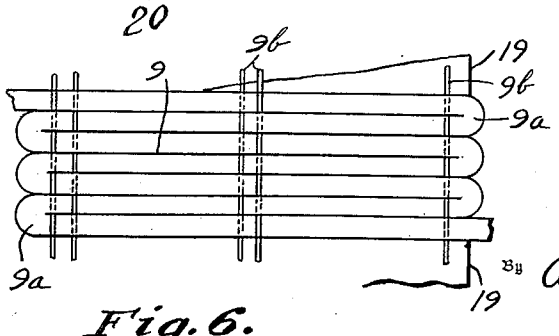


Fig. 6.

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Patented Dec. 9, 1952 2,621,141

UNITED STATES PATENT OFFICE

2,621,141

METHOD OF COVERING AN IRONING ROLL

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Application April 19, 1949, Serial No. 88,330

1 Claim. (Cl. 154—117)

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My invention relates to ironer roll pads and covers, and more particularly to those of the type wherein roves or slivers are employed as padding material, these roves being knitted or stitched to a backing cloth.

My invention has for one of its objects the provision of a pad of the character referred to which is of improved form and which will lie more smoothly on the roll of an ironing machine than is possible with various types of pads heretofore employed.

Another object of my invention is to provide, in a once-around pad of the character referred to, means for prolonging the life of the pad at its meeting edges, which are usually subject to hardening and spalling.

Another object of my invention is to provide a pad and a cover cloth therefor so arranged that although the rear end of the cover cloth is gripped between the pad and the roll, the working stresses or tensions on the cloth, will not have the tendency to bulge or push the pad outwardly at the zone where the cloth passes from behind the pad to the peripheral surface thereof.

Still another object of my invention is to provide a pad of the character referred to, which is so formed that it can be sold in long lengths and from which individual pads may be cut to suit ironing machine rolls of various lengths, which cut lengths can be readily applied to ironer rolls, either by mutiple wraps or once-around.

In the accompanying drawings, Figure 1 is an end view, partly in elevation and partly in section, of an ironer roll equipped with my pad and its accompanying lead cloth and cover cloth; Fig. 2 is a schematic view of a portion of the pad and cloths of Fig. 1, in partly expanded relation, to more clearly show the relation of the various parts of one another; Fig. 3 is a cross sectional view of the pad in a direction axially of the roll to which it will be applied, some of the stitching of the roves to the backing cloth being omitted; Fig. 4 is a view showing the manner in which the pad may be formed of great length, with the backing cloth and the lead cloth attached thereto, the strip of padding being unrolled and withdrawn from the roll for cutting into suitable lengths; Fig. 5 is a cross sectional view showing a manner in which the padding of Fig. 4 can be attached to an ironer roll, and Fig. 6 is a schematic plan view of a portion of a pad.

Referring first to Figs. 1, 2 and 3, a conventional ironing machine roll is indicated by the numeral 8, it being understood that this roll and its contained pad will be mounted in co-operative relation with a steam chest, shoe, cylinder or other smoothing implement for the ironing of and pressing or garments or other fabrics.

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The pad comprises roves or slivers 9 formed of cotton or other suitable material and looped back and forth, in a manner well known in the art and as shown in Fig. 6, wherein at each end, the roves are folded back upon themselves repeatedly as shown at 9a and stitched or laced at 9b, to the backing cloth 10. These roves are knitted or stitched to a backing cloth 10 of jute or other suitable material, also in a well known manner. One of the meeting edges of the pad is beveled as shown in Fig. 2. This jute backing sheet 10 will extend the full length of the pad, at the inner face of the pad. The stitching or knitting at 11 will be of conventional form with cotton thread or other suitable stitching material. However, at its beveled portion, the pad is stitched to the backing sheet 10 by asbestos yarn stitching 12, the stitches being somewhat closer together than the stitches at 11. This strengthens and reinforces the pad at that point, which reinforcement is necessary because the pad there tends, in use, to become scorched and hardened and become brittle and to disintegrate rapidly. The asbestos stitching not only reinforces the pad at that point, but is resistant to heat, and supports and retains the pad in shape.

A lead cloth 13 which extends approximately completely around the roll 8 is cemented at 14 to the roll or may be clipped to the roll at that point in a manner well known in the art. This lead cloth may be of cotton, asbestos or other suitable fabric. The other end of the lead cloth is stitched or knitted at 15 to the roves 9 and the jute cloth 10.

In applying the lead cloth 13 and the pad 9 to a roll, the lead cloth having previously had one end stitched to the pad at 15, the free end of the lead cloth is cemented at its inner surface to the roll, as indicated at 14. Thereupon, that portion of the lead cloth between the points 14 and 15 will be wrapped around the roll in a clockwise direction to bring the stitching at 15 into proximity to the cemented end at 14, as shown in Figs. 1 and 2. That portion of the pad 9 extending to the right beyond the stitching 15 will be wrapped around the roll by continuing the clockwise movement, to bring its beveled edge to approximately the position shown in Figs. 1 and 2.

A cover cloth 16 is provided, the inner end of

the cloth being inserted between the pad and the lead cloth by lifting one end of the pad from the roll sufficiently to permit insertion of the rear portion of the cover cloth between the pad and the lead cloth for a distance of perhaps one-half of the roll circumference. The free portion of the cover cloth extends between the edges of the pad as shown more clearly in Fig. 2. The cloth is then wrapped around the pad preferably for two or more turns and will be snugly held in contact with the pad during rotation of the ironer roll in the direction indicated by the arrow. The unbeveled edge of the pad of Fig. 2 will be compressed somewhat to the contour of the beveled edge, as in Fig. 1. Beveling of both edges is not necessary, and would be more expensive with the pad-forming machines commonly used.

The beveling of one edge of the pad as shown in Fig. 2 has the advantage of giving a smoother working surface than if both edges were squared and had simple abutting engagement with each other.

Another advantage of this beveling is that the cover cloth at the point where it lies between the beveled edges slopes somewhat tangentially and so will not exert so great a thrust radially outward on the overlying portion of the pad as it would if this edge of the pad were square or in a radial plane. In the latter case, the "lift" or outward thrust would more greatly tend to raise the overlying portion of the pad somewhat away from the roll 8 and thus create a bump or raised surface that would be detrimental to the ironing operation and to diminish the life of the pad and the cover cloth.

Referring now to Figs. 4 and 5, I show a pad made in large supply and rolled for convenience of shipment and storage, the pad being unrolled and portions cut therefrom, in accordance with the length of ironer roll to be covered. The pad may be formed of the usual roves 18 knitted to a jute backing 19 and having a lead cloth 20 stitched thereto. The edges of the padding are feathered at 21 and 22 to give a beveled or scived edge effect as shown in Fig. 5, when a piece of pad has been cut from the supply roll and wrapped around the ironer roll 8. The length of the pad, from 21 to 22 may be sufficient for two or more turns around an ironer roll, or only one turn. In this case, a cover cloth may or may not be used, as desired. A cover cloth however is here indicated by the numeral 23 and will be placed in position between the outermost layer of the pad and the preceding layer. The free end of the lead cloth of Fig. 4 will be cemented or otherwise fastened to the ironer roll at 22. It will thus be seen that the user can buy a rolled supply of padding and readily cut lengths therefrom to suit ironer roll length, and that he needs only place a cover cloth around the pad after it is wrapped on a roll.

In Fig. 4, there is a different orientation of the lead cloth 20 with respect to the pad 18 than in Fig. 2. In this instance, the lead cloth for the most part initially extends from the stitching 24 by which it is secured to the pad, along the rear face of the pad instead of only in the opposite direction as shown toward the left of the stitching 15 in Fig. 2. In applying the pads 18 to a roll, the free end of the lead cloth will be cemented to the roll at 25, and the cloth and pad will be wrapped around the roll in a counterclockwise direction from 25, as viewed in Fig. 4, the cloth 20 being given one turn and the pad one or more turns, depending upon its length circumferentially of the roll. That is, the lead cloth and pad will be given approximately a full turn counterclockwise around the roll as in Fig. 5, and the pad can either terminate at the end of one turn as in Figs. 1 and 2, or may be of much greater length than the cloth 20 and therefore be given a plurality of further turns, in a clockwise direction, as shown in Fig. 5. In either case, the beveled area at 21 will be placed in generally opposed relation to the beveled area 22.

I claim as my invention:

The method of forming and applying pads to ironer rolls, which comprises forming a strip of padding, placing a lead cloth strip against the rear face of the padding, securing one longitudinal edge of the cloth strip to the padding strip with the remainder thereof underlying the padding, dividing the composite strip transversely, to form pads, securing the free end of each cloth strip to an ironer roll along a line parallel to the roll axis, wrapping the lead cloth and the pad around the roll simultaneously and while the lead cloth is behind the rear face of the pad, to bring the edges of the pad into proximity to each other, inserting one end of a cover cloth behind the last-wrapped portion of the pad, and wrapping the protruding portion of the cover cloth around the pad.

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