

Feb. 2, 1954

S. A. OBITZ
PAD FOR IRONER ROLLS
Filed Nov. 2, 1951

2,667,685



Fig. 1.

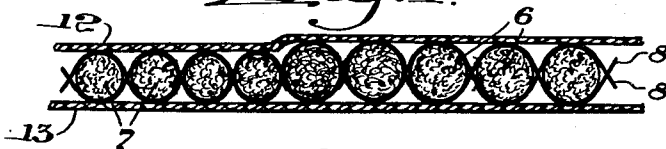


Fig. 2.

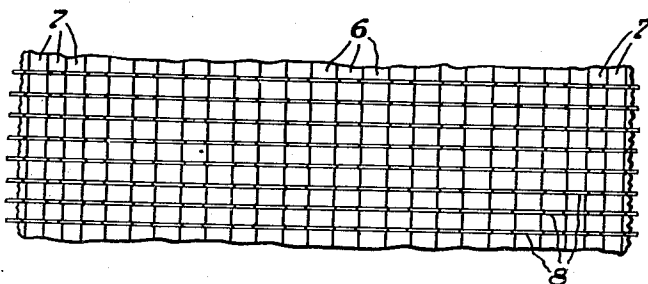


Fig. 3.

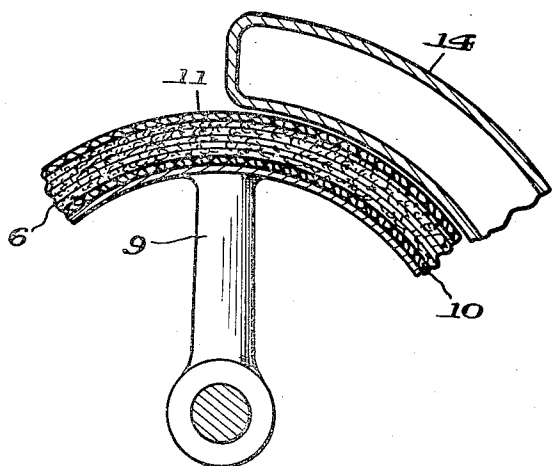


Fig. 4.

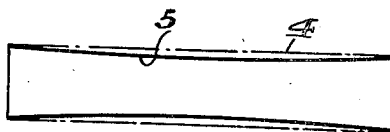


Fig. 5.

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2,667,685

PAD FOR IRONER ROLLS

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Application November 2, 1951, Serial No. 254,508

1 Claim. (Cl. 28—78)

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This invention relates to padding for ironer rolls such as those used in flatwork ironing. In devices of this character, a fibrous pad is commonly placed around the ironer roll, the pad having a cloth covering to support the work as it is moved past the ironer shoe or steam chest. The major portion of the ironing pressures occurs at the mid-zone of the roll, with the result that the padding becomes compacted, and the fibrous material is squeezed so greatly at zones near the ends of the roll as to become flared and ragged. Also, the pad becomes compacted at a circumferential zone near the middle of the roll and therefore becomes "set" to a concave condition as will be hereinafter explained more in detail, and there will therefore be less uniformity or smoothness of pressure on the work pieces.

My invention has for one of its objects the provision of an ironer pad of such form that the tendency toward producing frayed and ragged edges on the padding at the ends of an ironer roll, will be largely overcome.

Another object is to provide a pad of such form that cover cloths therefor will not be subjected to such severe frictional strains at the vicinity of the roll ends.

A further object of my invention is to provide a pad of the character referred to, wherein there is better uniformity of smoothing pressure on the garments, throughout the life of the pad.

Still another object of my invention is to provide a pad of the character referred to that can more readily be made on present standard types of knitting machines than can pads of other forms which have heretofore been made in an endeavor to accomplish the foregoing objects.

As shown in the accompanying drawing, Figure 1 is a sectional view through a pad made according to this invention, but with backing cloth omitted from the roves; Fig. 2 is a view, on an enlarged scale, of a portion of the pad of Fig. 1, complete with backing cloths; Fig. 3 is a fragmentary plan view of the pad of Fig. 1; Fig. 4 is a schematic view showing the manner in which the pad is mounted upon an ironer roll, and Fig. 5 is a schematic view indicating the manner in which pads of conventional form become compacted or guttered after a short period of use.

In Fig. 5, the dotted lines 4 indicate the original thickness of a common form of pad throughout its entire width, whereas the full lines at 5 show the manner in which it will become compacted or guttered after a period of use.

As shown in Figs. 1 and 2, my pad comprises

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a group of warp roves 6 that extend along the mid-zone of the pad and well toward the edges thereof. The remainder of the pad, at zones adjacent to its edges, contain roves 7 of less thickness than the roves 6. Suitably they may be of approximately two-thirds the thickness of the roves 6 or somewhat smaller. These roves are preferably of cotton, or a mixture of cotton and other fibrous material, because roves of that material are more readily available than are roves of asbestos and can more readily be handled on the knitting machines, and furthermore, are more readily available because they are more easily manufactured to desired thicknesses. The various roves are held in place by weft threads 8. In applying the pad to an ironer machine roll 9, a lead cloth 10 and a cover cloth 11 may suitably be employed therefor in a manner well known in the art. Reinforcing cloths 12 and 13 (commonly termed "backing") will be provided for the pad when desired and permanently secured thereto by stitching. These cloths may be of cotton, jute, asbestos, or the like. The pad will encircle the ironer roll for only one turn.

By making the marginal roves 7 of substantially less thickness than the roves 6, there will be less flaring and bulging of the fibers at the edges of the fabric (the ends of the ironer roll), since there will be a smaller amount of material to displace at those areas, under ironing pressure. At the same time, there will be adequate thickness of padding afforded by the roves 6, which are more continuously subjected to ironer pressures than are the areas 7—7. The roves 6 preferably cover somewhat more than one-half of the roll face.

Also, as the roves 6 become compacted in service, they will be reduced to approximately the thickness of the roves 7, thereby making for smoother ironer operations on the wider materials. However, there will be little ironing action at these reduced areas, the primary purpose of the thinner roves 7 being in a sense protective. That is, they serve as a means for avoiding spoiling of the ironer work by rusted and dirty areas near the ends of the ironer chest or shoe 14.

In commercial ironing, more than 90% of the smoothing is done within a width that is much less than the roll and shoe length. For example, there will be very little ironing beyond the marginal edges of the roves 6. The shoes or chests accumulate rust and dirt except at the usual pressing areas near the mid-portions thereof, and if the ironed goods are subjected to pressure and friction at the marginal dirty edges, the cloth

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or garments will, of course, become soiled. The presence of the step-down areas at 7-7 avoids any substantial pressure against goods that accidentally come into engagement with the shoe opposite to those areas when the said end zones of the shoe are unclean, and therefore, damage or soiling of the work will be avoided.

Another advantage in using roves 7 of uniform size and intermediate roves 6 of another uniform size has to do with the simplicity of manufacture or assembly and knitting of the roves on present standard knitting machines. One carrier of the knitting machine will feed the roves 6 and another carrier or pair of carriers of standard well-known forms will be used for feeding the roves 7. If the roves were of gradually decreasing thickness from the mid zone of the pad toward each edge thereof, it would be difficult or impossible to make a pad on a standard type machine, because of the necessity of employing too many carriers for feeding the roves.

Again, the cover cloth will not be subjected to such severe frictional drag at zones near the ends of the ironer roll as to cause early tearing or distortion at those zones, even after the area 6-6 has been squeezed to an extent where it is no thicker than the areas 7-7.

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I claim as my invention:

An ironer roll pad adapted to be wrapped once around an ironer roll and having roves therein connected together in unitary relation, and a cloth covering overlying the roves and secured thereto, the pad being of stepped formation in directions transversely of the roves, there being thicker roves symmetrically disposed to either side of the longitudinal mid line of the pad, and thinner roves symmetrically disposed at opposite sides of the thicker roves, the thicker roves being of approximately uniform thickness and the thinner roves being of uniformly lesser thickness which is not greater than approximately two-thirds the thickness of the thicker roves, the thinner roves having a total combined width which is less than that of the thicker roves.

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