Dec. 24, 1940. N. LEHRMAN 2,225,874

PADDING FOR LAUNDRIES AND THE LIKE

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Fig. 1.

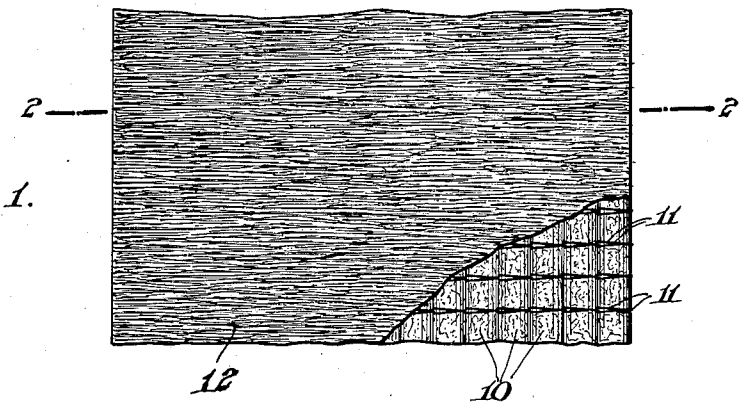
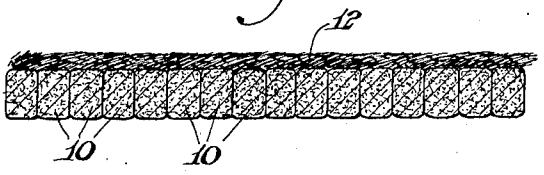


Fig. 2.



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PADDING FOR LAUNDRIES AND THE LIKE

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5 Claims. (Cl. 66—191)

This invention relates to padding for flat work ironing and for laundry and garment pressing machinery. The padding for this purpose which is now and has heretofore been available on the market generally consists of cotton strands or rovings of various thicknesses, these strands or rovings in the finished padding being disposed generally parallel and being held together by knitting or stitching. In some instances also, the padding has been made by weaving a multiple plane fabric of soft relatively large strands as warp threads with very little twist, the filling threads being of smaller size and much greater twist.

In the use of padding, whether wrapped on presser rolls or relatively flat on bucks for flat pressing, the conditions are rigorous. The pads in use are subjected to severe mechanical pressure, which may run up to 1500 lbs. At the same time, the temperatures to which the pads are subjected are high and in many instances a large quantity of moisture is present. The conditions of use frequently result in the padding becoming hard or soggy or both, within a very short time. The strands or rovings become compacted so that they are much smaller than as originally provided. The hard padding which thus results is unsatisfactory as padding. When the padding arrives at the condition in which the strands are compacted the binder threads or cords which hold the rovings or coarse yarns together stand out on the faces of the padding and present a rough surface which is unsuited for pressing. The stitching or binding threads on the face of the padding leave impressions on the fabric or garment which is being pressed or ironed so that a smooth finish cannot be obtained. In many instances also upon compaction the strands or rovings tend to separate and leave gaps therebetween which interfere with the proper functioning of the padding.

On modern garment pressing machinery also, it is now customary to employ a vacuum pump or other suitable suction equipment for the purpose of drawing, from the garments and the padding, the moisture derived from the steam introduced in the head or bottom pressing buck. Padding which has become hard, soggy, or in which the strands or rovings have separated is not suitable for use with such vacuum systems.

Numerous attempts have heretofore been made to improve the padding for presser rolls and flat pressing, but none of the paddings have been entirely satisfactory. For example, in some instances the strands or rovings have been provided with central cores of resilient material in order to reduce the compacting effect of the continued application of pressure at high temperatures and in the presence of moisture. This has not, however, obviated the objection arising from the binding threads or cords projecting from the surface and the separation of the strands so that gaps occur therebetween. In other instances, in order to prevent the opening up or separation of the strands or rovings the strands or rovings have been disposed in a plurality of planes. This also has not been entirely satisfactory and the life of the padding is relatively short.

Attempts have also heretofore been made to improve the padding which was available by the use of backing materials, such as burlap, but this has not prevented the packing down of the strands or rovings, and such padding quickly becomes hard or soggy in the same manner as the other padding hereinbefore referred to.

In some instances, when the padding after use presents a rough, uneven surface by reason of the stitching or binding threads coming to the surface thereof, attempts have been made to use a covering material interposed between the padding and the customary outer sheet of duck or the like. The cost of such intermediate pad covering material is usually high and in many cases equals the cost of the padding itself, so that the total cost to the user is objectionably high and without sufficient compensating advantages. The use of the additional interposed covering material does not, in most instances, prevent the padding from becoming hard and soggy.

In accordance with the present invention an improved type of padding is provided which has been found in practice to have a longer life, to be free from the objectionable features of becoming hard or soggy in use, which continuously presents a smooth outer surface, which is satisfactory for use on machines provided with vacuum equipment and which is relatively simple to construct. With the improved padding, also the interposed covering material hereinbefore referred to is rendered unnecessary.

The nature and characteristic features of the invention will be more readily understood from the following description, taken in connection with the accompanying drawing forming part hereof, in which:

Figure 1 is a top plan view of a piece of padding made in accordance with the present invention, part of the upper surface being removed to show the internal construction; and

Fig. 2 is a vertical sectional view taken approximately on the line 2—2 of Fig. 1 and in a

direction at right angles to the longitudinal axes of the strands or rovings.

It will, of course, be understood that the description and drawing herein contained are illustrative merely, and that various modifications and changes may be made in the structure disclosed without departing from the spirit of the invention.

Referring more particularly to the drawing the padding of the present invention preferably consists of a base or underlying fabric with a facing thereon. The padding is preferably constructed from strands 10 consisting of rovings or yarns of cotton, wool or other suitable material, the fibres of which are preferably disposed in substantially parallel relationship within the strand for resilience. These strands may, if desired, have a resilient interior core of the type well known in the trade. The strands or rovings are preferably disposed substantially parallel and are held in position by binding threads or cords 11 which may be disposed as knitted loops, by a chain stitch, by interlacing to form a woven fabric, or otherwise disposed in any manner for holding the strands or rovings 10 close together in a flat position.

After the padding has been initially constructed from the strands or rovings and binders, the padding is passed across napping or teaseling rolls or is subjected to a brushing or the like operation for the purpose of raising fibres from the upper faces of the strands or rovings 10. This operation is preferably carried out in a direction at right angles to the longitudinal axes of the strands or rovings 10 and the fibres thus raised are smoothed out above the strands or rovings 10 and the binder threads 11. The smoothing may be effected by brushing or combing the raised fibres so that at the surface the fibres are flat, smooth and are disposed substantially parallel along the surface. The fibre raising operation may be repeated in the opposite direction, and preferably also at right angles to the longitudinal axes of the strands or rovings. If desired and in order to obtain the desired thickness of the body of fibres above the rovings 10 these operations may be repeated.

By this operation of raising fibres a compact body of fibres 12 is raised above the plane of the strands 10 with fibres extending between and across two or more strands or rovings 10 and thereinto. The fibres are interlocked and generally parallel and provide a cushion on the upper or outer face of the pad which is resilient vertically and horizontally and adherent thereto, which assists in holding the strands in position and which is soft and smooth. The underside or side which is to be disposed adjacent the presser roll or buck is preferably left unfinished.

If desired the fibres on the face of the padding may be provided thereon in any other desired manner which will provide a body of interlocked fibres disposed at the surface as hereinbefore referred to, of sufficient depth and adherent to the padding. This may be done by a suitable carding or fibre laying operation with a suitable adhesive interposed for securing the fibres in an adherent condition.

It has been found in practice that the padding, constructed as aforesaid and with the soft facing composed of fibres raised from or disposed on one side of the fabric, retains its resilient character for a longer period of time, has a decreased tendency for the strands or rovings to pack up into hardened strands, has a decreased tendency for the strands to separate and provide breaks in the padding, and by reason of the smooth face of substantial thickness avoids the binding threads 11 coming to the surface or impressing themselves in any way on the fabric or garment which is being pressed or ironed.

I claim:

1. Padding for pressing and ironing devices comprising a plurality of substantially parallel relatively thick rovings disposed in a coplanar relationship, each of said rovings consisting of fibres disposed substantially parallel to the longitudinal axis thereof, binder threads transversely disposed with respect to said rovings in knitted loops for holding said rovings in position, said binder threads being relatively hard and which upon exposure on the surface of compacted padding would render the surface rough and uneven, and a smooth fibrous facing extending over the outer surface of the padding, said facing overlying the rovings and the binder threads and being composed entirely of fibres integral with and extending from the rovings, said facing providing a resilient cushion for reducing compaction of the underlying rovings and preventing the exposure of the binder threads on the surface of the padding under the influence of heat and pressure.

2. Padding for pressing and ironing devices comprising a plurality of substantially parallel relatively thick strands, each of said strands consisting of fibres disposed substantially parallel to the longitudinal axis of the strand, binder threads transversely disposed with respect to said strands in knitted loops for holding said strands in position, said binder threads being relatively hard and which upon exposure would render the surface rough and uneven upon compaction, and a smooth fibrous facing extending over the outer surface of the padding, said facing overlying the strands and the binder threads and being composed entirely of fibres integral with and extending from the strands, said facing providing a resilient cushion for reducing compaction and separation of the underlying strands under the influence of heat and pressure and preventing the exposure of the binder threads on the surface of the padding, said facing consisting of a body of fibres having the fibres on the outer surface thereof disposed substantially parallel to each other.

3. Padding for pressing and ironing devices comprising a plurality of substantially parallel relatively soft thick strands disposed in a coplanar relationship, each of said strands consisting of cotton fibres disposed substantially parallel to the longitudinal axis of the strand, binder threads transversely disposed with respect to said strands in knitted loops for holding said strands in position, said binder threads being relatively hard and which upon exposure on the surface of the padding under compaction would render the surface rough and uneven, and a smooth fibrous facing extending over the outer surface of the padding, said facing overlying the strands and the binder threads, said facing providing a resilient cushion for reducing compaction and separation of the underlying strands under the influence of heat and pressure and preventing the exposure of the binder threads on the surface of the padding, said facing consisting entirely of a body of fibres extending from and adherent to said strands and having the fibres on the outer surface thereof disposed substantially parallel to each other and at right

angles to the longitudinal disposition of the strands.

4. Padding for pressing and ironing devices comprising a plurality of substantially parallel relatively thick strands disposed in a coplanar relationship, each of said strands consisting of cotton fibres disposed substantially parallel to the longitudinal axis thereof, binder threads transversely disposed with respect to said strands in knitted loops for holding said strands in position, said binder threads being relatively hard and which upon exposure on the surface of compacted padding would render the surface rough and uneven, and a smooth fibrous facing extending over the outer surface of the padding, said facing overlying the strands and the binder threads and being composed entirely of a body of fibres extending from and adherent to the strands, said facing providing a resilient cushion for reducing compaction of the underlying strands under the influence of heat and pressure and preventing the exposure of the binder threads on the surface of the padding.

5. Padding for pressing and ironing devices comprising a plurality of substantially parallel relatively thick strands, binder threads transversely disposed with respect to said strands in knitted loops for holding said strands in position, said binder threads being relatively hard and which upon exposure would render the surface rough and uneven upon compaction, and a smooth fibrous facing extending over an exposed face of the padding, said facing overlying the strands and the binder threads and being composed entirely of a body of fibres extending from and adherent to the strands, said facing providing a resilient cushion for reducing compaction of the underlying strands under the influence of heat and pressure and preventing the exposure of the binder threads upon the surface of the padding.

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