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1,975,103

LAUNDRY PADDING

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Fig. 1.

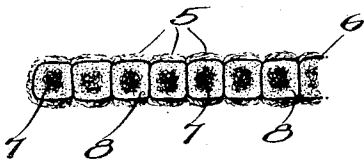
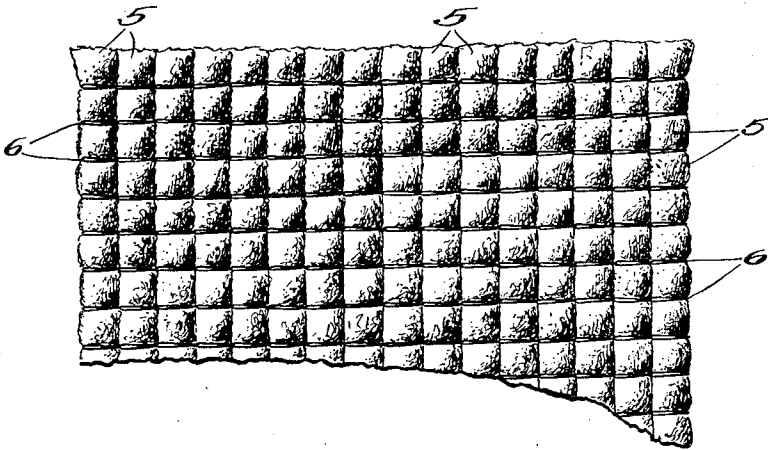


Fig. 2.

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UNITED STATES PATENT OFFICE

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LAUNDRY PADDING

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5 Claims. (Cl. 66—193)

This invention relates to a padding such as is used on the presser rollers of ironing machines employed in laundries, and the like.

Such paddings, as produced in the industry at present, are composed of rovings or slivers of cotton laid ply upon ply and knitted together. The slivers used are composed of long staple cotton which has been carefully processed not only to remove every iota of foreign matter, dirt, leaves, etc. from it but also to render it as light and fluffy as possible and with the fibers of the cotton arranged in parallel relationship. One of the main purposes of constructing the paddings of this thoroughly processed cotton is to produce a padding which will meet the demands, as to whiteness and softness, of the trade. The users of the paddings demand a high quality product.

The very quality of the paddings as now manufactured for the trade, however, gives rise to material disadvantages so far as the life of the padding when in use, and its effectiveness for the purpose for which it is designed, are concerned. The usual method of applying the paddings is to wrap them about the rolls of the ironing machines and cover them with a sheet of cloth. As the machines operate the rollers revolve while bearing upon the pieces of laundry that pass through the machines. Considerable pressure is applied to the rolls during their operation, and they are, as well, heated to considerable degree, and in addition to this the pieces of laundry as they pass through the machines are in a dampened condition. The result of this is that the paddings are not only subjected to heat and pressure, but also to the action of the vapors resulting from the operation of the machines. The constant alternate compression and expansion that takes place in the paddings (due to the fact that they press only on one side against the work as they revolve) in the presence of pressure, heat and vapor, reduces the paddings in a relatively short time to a point where they lose their life and resiliency and become flattened, matted and hard, and present uneven and relatively hard surfaces to the laundered pieces, and when this condition is reached the paddings need to be replaced with new ones. The cleaning, carding, etc. processes through which the cotton is sent to place it in a condition which will be acceptable to the trade take away a good deal of the life and resiliency of the cotton and "beat" it into a condition which lowers its resistance to the deteriorating conditions surrounding its use in a laundry roll padding.

The principal object of my invention is to provide a padding which to a marked extent alle-

viates the disadvantages referred to above which accrue to paddings as at present constituted in the art. I accomplish this object by providing a padding which so far as external appearances are concerned meet every requirement of whiteness, cleanness, fluffiness and softness demanded by the trade, but which is so constructed interiorly as to withstand, to a much greater degree than paddings as at present constituted, the tendency of such paddings to lose their life and resiliency and become hardened and packed. To do this I provide a padding in which the layers of roving are composed of a core of a material having the characteristics of remaining resilient under the condition of use above referred to and having an outer covering or veneer of cotton which has been thoroughly processed so as to render it soft and fluffy and white, and with its fibers arranged in substantially parallel relationship. The padding so composed presents the external appearances of padding as now commercially produced, but due to the greater resiliency and toughness, longer life, and ability to withstand the adverse conditions of use, the padding is designed not only to outlive the product as now usually commercially produced, but to avoid the objections as to the development of surface irregularity and lumpiness common to the usual paddings.

A further object of my invention is to provide a padding which, during the knitting operation, will develop a greater thickness and a fluffier and softer appearance than a padding as now usually constituted in the trade, of the same weight per square inch.

Another object of my invention is to provide a padding which, while having the advantages above referred to, is at the same time a cheaper product.

With these and other objects in view which will become more apparent as the description proceeds, I have illustrated a padding made in accordance with one form of my invention in the accompanying drawing, in which:

Figure 1 represents a plan view of a portion of a padding made according to my invention; and Figure 2 represents a sectional view thereof.

Referring more particularly to the drawing the padding is made up of a succession of plies 5 of roving, knitted together as at 6. Machines capable of making this kind of padding are known in the art, and it is therefore unnecessary to describe the knitting operation in detail.

The layers of roving are composed of a core

7 surrounded by a veneering 8 of material differing in quality or kind, and characteristics, from the material which comprises the core. I form the core of a resilient, fibrous material such as
 5 jute, flax, low grade cotton, ramie, wool, etc. The material of the core is of a high natural resiliency relative to the material of the veneering, and relative to the cotton used in making
 10 paddings in the art at present, such as will make it tend to expand after having been compressed, and the fibers of the core are preferably in a state of interentanglement and intermixture differing from those of the veneering, which latter are as
 15 a result of the milling operations through which the veneering has passed in a light and fluffy and substantially parallel relationship. The veneering may take the form of "comber" cotton in the condition in which it comes from the last carding
 20 operation used in the processing of the cotton, so that the roving presents an external appearance similar to that of the high grade cotton which has heretofore been used in the art in making the entire roving. This veneering of finished cotton surrounds the more resilient and
 25 interentangled fibrous core of the roving, the core thus acting as an agency which imparts to the sliver, and to the padding when the latter has been formed, a degree of resiliency and toughness which withstands to a marked extent the
 30 conditions of heat, pressure and moisture to which the padding is subjected while in use. The core, when it is composed of cotton, may be made of a low grade cotton which has been processed only sufficiently to allow it to be formed into a sliver
 35 or roving, and consequently may contain some impurities or foreign matter such as leaf flecks or the like, and which, as a consequence of not having proceeded far in the milling processes, has its fibers still entangled and intermeshed to a
 40 considerable degree. Such foreign matter, however, if present is not objectionable as it is entirely encompassed and hidden by the surrounding veneering. And so, also, with the other materials that may form the core. The interentangled
 45 condition of the fiber of the core adds to the toughness and resiliency of the padding as a whole.

The core, and the veneering, may if desired be twisted to a greater extent than the twist imparted to the roving usually made up into paddings, and this twisted condition of the core, or the veneer, or both adds to the resiliency, and in a degree to the tensile strength, of the plies which go into the formation of the paddings.
 50 The twisting is not, however, sufficient to render the core or the roving similar to a rope or cord.

In addition to the advantages in use which accrue to the padding made according to my invention, it will be observed that the greater resiliency, and tendency to expand, imparted by the core to the roving, has the advantage, during the knitting operation, of resisting the compressing action of the knitted loops, with the result that the padding when finished is thicker than
 60 paddings, as ordinarily made, of the same weight per square surface area, more compact by reason of the tendency of the layers to bulge laterally against each other, presents a more fluffy appearance, and tends to expand between the places
 65 where it is caught by the knitted loops, so that the latter are in effect buried in the veneering to a greater extent than with the usual paddings. This is of advantage in increasing the life of the padding for it protects the knitted loops from wear.

The padding may be manufactured in the form illustrated, or, if desired, it may be made up with a reinforcing backing of woven fabric as for instance in accordance with the patent to Baynard Willingham, No. 1,816,416.

Having thus described my invention what I claim as new, and desire to secure by U. S. Letters Patent is:—

1. As an article of manufacture, a padding for laundry machines, said padding comprising a plurality of layers of slivers held together by knitted loops, the slivers having a core portion and a veneering portion of the same structural
 85 sliver characteristics, the veneering portion covering the core portion, the core portion being of tough resilient fibrous material as compared to the veneering portion with the fibers interentangled and intermeshed, the material of the
 90 veneering being soft and fluffy with the fibers arranged substantially in parallel relationship.

2. As an article of manufacture, a padding for laundry machines, said padding comprising a plurality of layers of slivers held together by
 95 knitted loops, the slivers comprising a core portion and a veneering portion of slivrous characteristics, the veneering portion covering the core portion, the material of the core portion differing in quality from the material of the veneering
 100 portion and being relatively resilient as compared thereto, the material of the veneering portion being soft and fluffy.

3. As an article of manufacture, a padding for laundry machines, said padding comprising a
 105 plurality of layers of slivers held together by knitted loops, the slivers comprising a core portion and a veneering portion both of slivrous structural characteristics, the veneering portion covering the core portion, the material of the core portion differing in quality from the material of the veneering, the material of the
 110 veneering portion being soft and fluffy.

4. A padding for laundry machines comprising a plurality of layers of slivers suitably held together, the slivers comprising a core portion and a veneering portion surrounding the core portion, the core portion and the veneering portion being in the form of a sliver, the core portion being a fibrous material of different grade
 115 than the veneering portion, the latter being of soft fluffy fibers.

5. A padding for laundry machines comprising a plurality of composite slivers suitably held together, said composite slivers comprising a core portion and a veneering portion both being of
 120 slivrous characteristics, the veneering portion covering the core portion, the core portion being of fibrous material lower in grade and higher in resiliency than the material comprising the
 125 veneering portion.

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