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B. M. GLOVER

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TEXTILE MANUFACTURE BY SEWING

Filed March 29, 1928

Fig. 1.

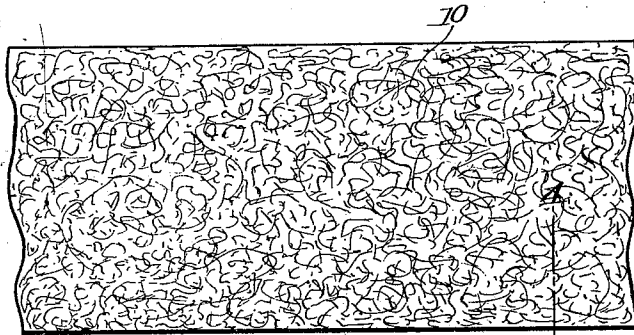


Fig. 2.

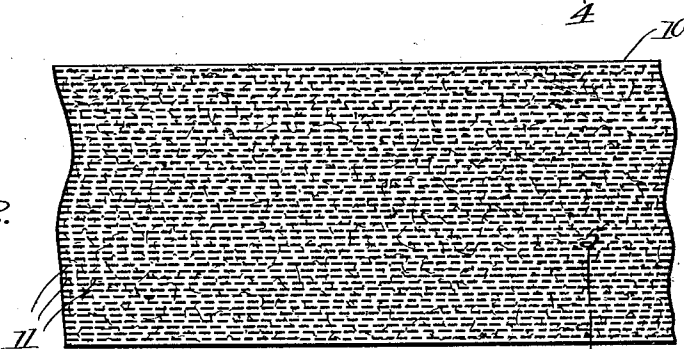


Fig. 3.

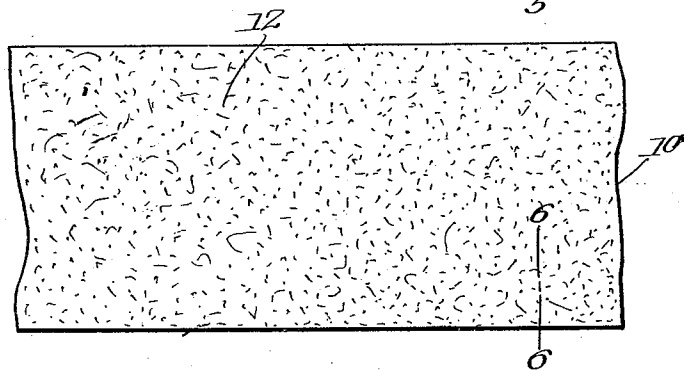


Fig. 4.

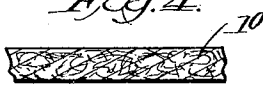


Fig. 5.

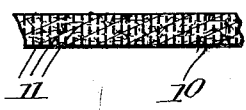
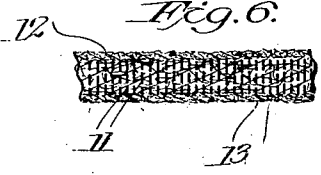


Fig. 6.



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TEXTILE MANUFACTURE BY SEWING

Application filed March 29, 1928, Serial No. 265,820, and in Great Britain April 5, 1927.

This invention relates to the manufacture of textile materials, the chief object being to dispense with the usual carding, spinning and weaving operations and substitute therefor a sewing process whereby cheaper material may be produced.

According to the invention, a sliver or fleece of fibres, is passed through a sewing machine adapted to sew the sliver lengthwise only with a series of longitudinal rows of stitches whereby the material is firmly held together in the form of cloth, no transverse stitching or transverse locking threads being incorporated. After the sewing operation the strip of cloth so formed may be subjected to a felting or milling operation whereby the fibres may be caused to "burst" and thereby cover the stitching.

The lap, which may be of any width, may be taken from an intermediate feeding machine such as a Blamire feed or the like which is attached to the scribbler and passed through a sewing machine having a plurality of closely spaced needles so that the longitudinal rows of stitches produced will be close enough together as to ensure of the fibres being firmly secured. The sewing material used may be wool, cotton or other thread according to the nature or class of material being manufactured, and the weight of the cloth may be regulated by varying the thickness of the lap as it leaves the scribbler, while the width of the cloth may also be regulated at this point.

To produce a striped effect, colored sewing material may be used at appropriate intervals.

Referring to the drawings in which is disclosed a preferred embodiment of the invention,

Figure 1 is a detail plan view of the fleece as it issues from an intermediate feeding machine.

Figure 2 is a detail plan view of the fleece after being sewed longitudinally.

Figure 3 is a detail plan view of the cloth in its final form.

Figure 4 is a sectional view taken substantially along the line 4—4 of Figure 1.

Figure 5 is a sectional view taken substantially along the line 5—5 of Figure 2.

Figure 6 is a sectional view taken substantially along the line 6—6 of Figure 3.

Referring to the drawing in which like numerals indicate like parts in the several views, and more particularly Figure 1, 10 denotes the fleece of wool or like material as it issues from an intermediate feeding machine such as a Blamire feed (see textbook entitled "Spinning Woollen and Worsted" by Walter S. Bright McLaren, published by Cassell & Co., 1889, London, England). The material 10 is then stitched longitudinally by the threads 11 (Fig. 2) preferably in a multi-needle sewing machine, in order that the longitudinal rows of stitches will be sufficiently close together to insure the fibres forming a compact and tenacious whole that cannot be easily separated.

After the sewing operation, the strip of cloth thus formed is subjected to a felting operation, that causes the fibres of wool to interlock and be firmly joined together. As is well known in the art, felting is due to the wavy, curly nature of the wool which tends to make it twist around anything it catches. The serrated edges of the fibre fit into each other and interlock due to the pressure exerted by heavy weights usually employed in the felting process, so that the cloth or material which formerly appeared to be made of separate threads, after the felting appears to be one solid mass. As a result of the felting operation the outer surfaces 12 and 13 of the material (Fig. 6) are caused to cover or conceal the stitching 11 so that the cloth in its final form has a smooth and well finished appearance. Moreover, the finished cloth exhibits considerable strength both longitudinally and transversely despite the absence of any transverse stitching or locking threads, thus providing a very strong and durable piece of material capable of withstanding the wear to which material of this kind is usually subjected.

It is to be understood that the form of invention herewith shown and described is merely illustrative of a preferred embodiment and that such changes may be made

therein as fall within the purview of one skilled in the art and the scope of the appended claims.

I claim:—

- 5 1. The method of making textile material which comprises stitching a fleece to form a series of rows of stitches and then subjecting the material to a felting operation, so that the cloth formed is closely intertwined and the stitches are covered by the adjacent fleece.
- 10 2. A new article of manufacture comprising a cloth of textile material having a fleece foundation of feltable fibres and provided with closely spaced rows of longitudinal stitches, the fibres being interlocked and firmly joined together to provide a compact and tenacious whole, and the stitches being covered by adjacent fleece.

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