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METHOD FOR THE PRODUCTION OF A PATTERNED DOUBLE WOVEN
PILE FABRIC HAVING FLOATING PILE THREADS
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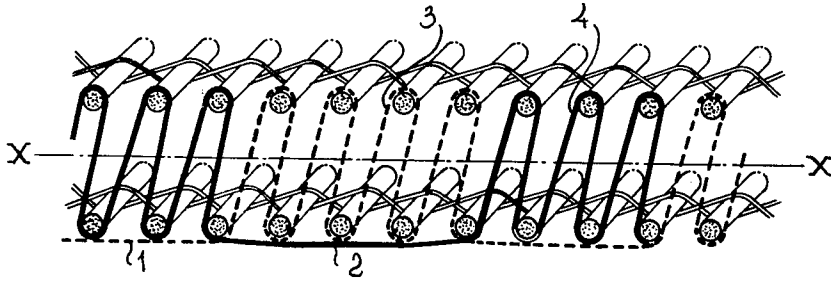


Fig. 1.

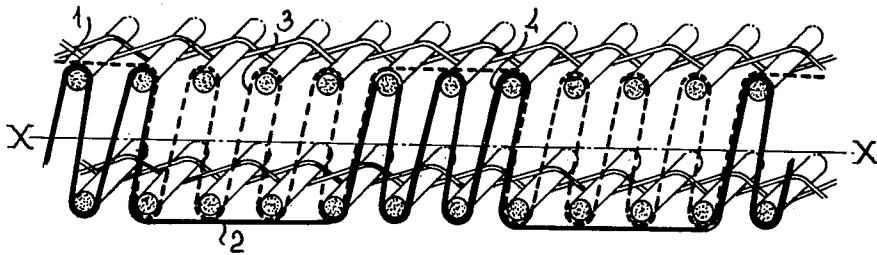


Fig. 2.

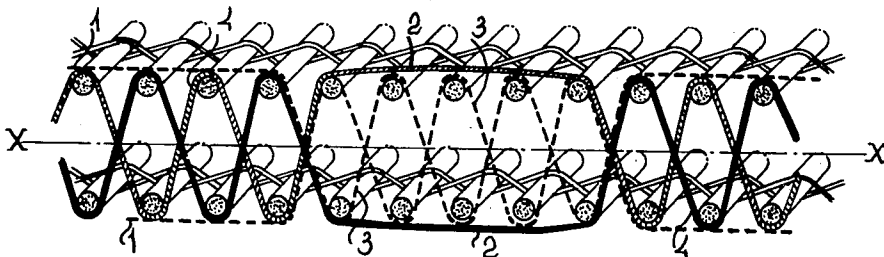


Fig. 3.

1

2,735,452

METHOD FOR THE PRODUCTION OF A PATTERNED DOUBLE WOVEN PILE FABRIC HAVING FLOATING PILE THREADS

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3 Claims. (Cl. 139—397)

The present invention relates to an improved method for the production of a patterned double woven pile fabric having pile tufts bound in on each weft thread and comprising floating pile threads, which after the cutting of the finished double pile fabric, are drawn out of its fabric components.

In hitherto known methods for producing pile fabrics of this kind it has been the practice to lay at the lines or zones of transition in the pattern, i. e. where the pile threads of different colour and/or nature alternate with one another, the floating threads of the two kinds of pile threads, on the same side of the double fabric.

This however, is objectional, in so far when drawing out the floating ends of the pile threads at such zones, each time pile tufts are removed from one of the two fabric components only, resulting in the occurrence of so called transition faults.

The invention has for its object to provide an improved method for the production of a double pile fabric of the kind referred to, whereby the occurrence of such faults is prevented, such object being attained in that at the transitional zones, the pile threads of the kind used up to the moment such transitional zone is reacted and the pile threads next to be worked, are passed out of the weave, respectively are introduced therein on opposite sides of the double-fabric.

At the lines of transition, the pile threads are thus doubled, that is to say pile threads of different colour and/or nature lie directly one beside the other so that upon drawing out the floating portions of the pile threads, there will always remain the pile tufts of one kind of pile threads, so that none of the two components obtained by cutting the double pile fabric, will present such transition faults and both components will therefore be completely identical.

The invention will be further elucidated with reference to the accompanying drawings, in which

Fig. 1 shows the weave of a patterned double pile fabric when carrying into effect the method hitherto known.

Fig. 2 is a similar view of such weave when practising the novel method according to the present invention.

Fig. 3 shows a further example of such novel method.

In these figures the pile threads of one kind in each case are represented by dotted lines, whilst those of an other colour and/or nature are shown in full lines.

Referring to Figure 1, in a double woven pile fabric made according to the known method, the floating portions 1 and 2 respectively of the pile threads 3 and 4 respectively are always located at the same side of the twin system; at the zones of transition the pile threads 3 of the kind momentary worked, are always passed out of the lower weave at the point where the pile threads next to be used, are introduced in such weave.

It will be apparent that when in that case, after the cutting of the finished twin fabric along the line $x-x$, the not bound in floating portions of the pile threads are

2

drawn out, pile tufts are removed from the lower component of the twin fabric, causing therein open spaces, the so-called transition faults.

Now referring to the twin pile fabric shown in the 5 Figures 2 and 3 and produced in accordance with the novel method constituting the present invention, it appears, that therein the pile threads of different kinds, at the transitional zones, are passed out of the weave respectively are introduced therein, on opposite sides of 10 the twin system in such a manner, that each time, at the transitional zones, two series of pile threads—of different colour and/or nature—together run through the system in exactly the same way, resulting therein, that when subsequently the floating portions of the pile threads 15 are drawn out, the pile tufts formed by one of such series only disappear, whilst those of the other series remain in place. This therefore avoids the formation of faults of the kind indicated.

Fig. 3 differs from Fig. 2 in that it represents a fabric 20 woven with two spools, i. e. wherein each time two weft threads are woven in at the same time and each of such weft threads binds a pile thread, so that always two similar pile threads are simultaneously bound in one 25 either side of the twin system. In this manner not only transition faults are avoided, as also in Fig. 2, but as far as the location of the pile tufts is concerned, one also attains a complete symmetry of the two fabric components. Moreover it will be understood, that this, when compared with the fabrics shown in Fig. 1 or 2, results 30 in a double output and that both fabrics will be provided with selvages.

What I claim is:

1. A method of weaving a patterned pile fabric in double cloth comprising the steps of weaving two foundation cloths each made up of successive wefts and warps 35 interwoven therewith, interweaving pile warps of a first kind with intermittent groups of the wefts in both of the foundation cloths so that the floating portions of said pile warps of the first kind extending over the wefts between said intermittent groups are all disposed at the 40 outside of one of said foundation cloths, simultaneously interweaving pile warps of a second kind with said wefts between the intermittent groups so that the floating portions of said pile warps of the second kind extending over said intermittent groups of wefts are all disposed 45 at the outside of the other of said foundation cloths and with said pile warps of the first and second kinds conjointly extending between the foundation cloths at the first and last wefts of said intermittent groups, cutting 50 through said pile warps of the first and second kinds to separate the double cloth, and drawing out all the floating portions of said pile warps of the first and second kinds.

2. A method of weaving a patterned pile fabric in double cloth comprising the steps of interweaving two 55 sets of foundation warps with related foundation wefts to form two foundation cloths, interweaving pile warps of a first kind with spaced apart groups of said wefts of the two foundation cloths, interweaving pile warps 60 of a second kind with the wefts between said groups, the portions of said pile warps between the wefts with which the latter are interwoven floating at the outside of the double cloth, said pile warps of the first kind being extended into and out of the double cloth at the same transition defining wefts where said pile warps of 65 the second kind respectively extend out of and into the double cloth and at opposite sides of the latter so that said pile warps of the first and second kinds conjointly extend between the two foundation cloths at the 70 transitions between the two kinds of pile warps, cutting the pile warps between the two foundation cloths,

3

and drawing out all of the floating portions of said pile warps.

3. A woven pattern pile fabric in double cloth comprising two sets of foundation warps interwoven with related wefts to define two foundation cloths, a first kind of pile warps interwoven with spaced apart groups of said wefts in both foundation cloths, the portions of said first kind of pile warps between said groups of wefts floating at the outside of the double cloth, a second kind of pile warps interwoven with the wefts in both foundation cloths between said spaced apart groups and having the portions thereof floating at the outside of the double cloth in the regions of said groups, said pile warps of the first kind extending into and out of the double cloth at the same wefts where said pile warps of the second kind extend out of and into, respectively,

4

the double cloth and at opposite sides of the latter so that said first and seconds kinds of pile warps extend cojointly through the double cloth at said same wefts defining the transitions between the elements of the fabric pattern whereby, when said pile warps are cut to divide the double cloth into two portions, said floating portions can be drawn out without resulting in faults at said transitions between the elements of the fabric pattern.

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