May 18, 1926. 1,585,043

E. MEIER

THREAD AND METHOD FOR MANUFACTURING IMPREGNATED FABRIC

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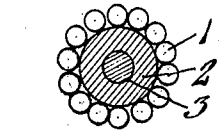


Fig. 1.

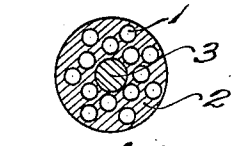


Fig. 2.

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THREAD AND METHOD FOR MANUFACTURING IMPREGNATED FABRIC.

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The manufacture of thick woven impregnated fabrics, for instance such as used for driving belts and the like is complicated from the fact that it is difficult to bring the impregnating material, such as for instance rubber or balata to thoroughly penetrate the fabric.

In accordance with the present invention there is utilized for the manufacture of impregnated fabric of this kind a thread which is spun about a central core of impregnating material, and when the fabric is finished, it is heated to such a degree that the impregnating material melts and penetrates the fabric.

In this manner a thorough impregnation is obtained, as air bubbles do not prevent the impregnating material from penetrating the thick fabric, which is the case when the impregnating material is introduced from the outside.

On the drawing there is diagrammatically indicated a form of the invention, Figs. 1 and 2 showing a cross section of a thread before and after the treatment and vulcanizing.

As it will be seen from Fig. 1 the separate filaments 1 of the thread are spun about a core 2 of impregnating material, for instance unvulcanized rubber.

As indicated in dotted lines a core 3 of metal or thread may be mounted in the centre of the rubber core 2.

After the treatment and the vulcanizing operation the cross section of the thread takes an irregular form such as the form illustrated on Fig. 2, the filaments 1 being twisted together, whereas the soft impregnating material 2 is pressed outwards between the filaments 1 and enclose the same completely. The finished thread has no rubber core, but all its filaments are enclosed in rubber, and the thread is hereby distinguished from ordinary rubber thread which is provided with a core of vulcanized rubber enclosed in textile threads.

Besides for driving belts and the like the thread and method herein described may also be used for manufacturing wheel-tyres for motor-cars or the like.

Claims:—

1. The process of manufacturing woven fabrics, which comprises spinning textile threads about a core of impregnating material capable of being vulcanized, weaving the threads thus formed to constitute a fabric, heating the woven fabric sufficiently to melt said cores and thereby cause the latter to completely enclose the threads.

2. The process of manufacturing woven fabrics, which comprises spinning textile threads about a core of impregnating material capable of being vulcanized, weaving the threads thus formed to constitute a fabric, heating the woven fabric sufficiently to melt and vulcanize said cores and thereby cause the latter to completely enclose the threads.

In testimony that I claim the foregoing as my invention, I have signed my name.

ERLING MEIER.