Feb. 28, 1939. P. SCHÖNFELD 2,149,031

MANUFACTURE OF WARP GOODS PROVIDED WITH RUBBER THREADS

Filed Oct. 2, 1937

Fig. 1

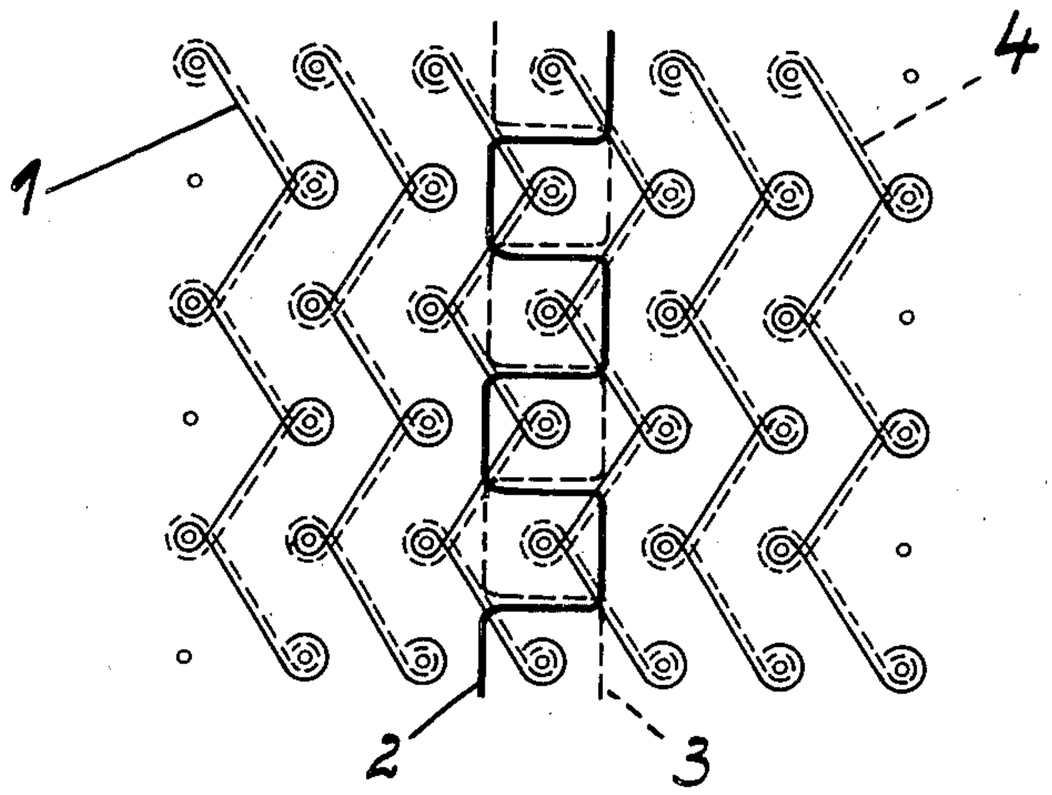
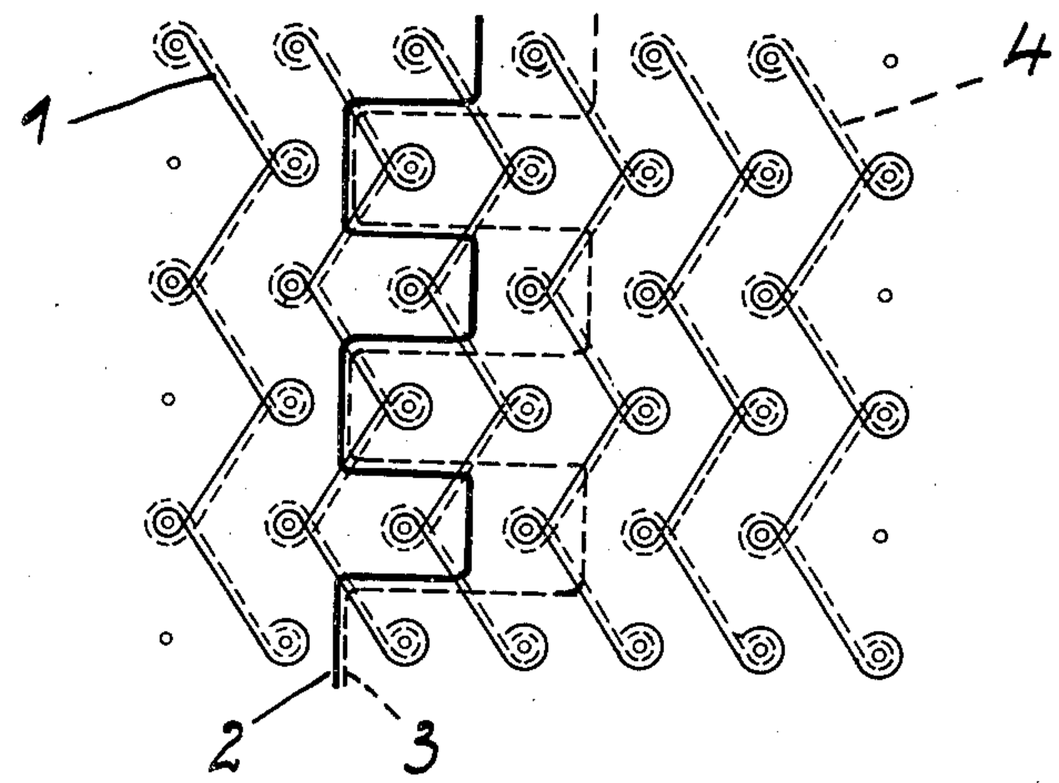


Fig. 2.



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Patented Feb. 28, 1939 2,149,031

UNITED STATES PATENT OFFICE

2,149,031

MANUFACTURE OF WARP GOODS PROVIDED WITH RUBBER THREADS

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Application October 2, 1937, Serial No. 166,906
In Germany February 13, 1937

4 Claims. (Cl. 66—84)

This invention relates to the manufacture of a plain warp fabric possessing rubber warp threads on a warp loom having only one row of needles in such manner that the lower lapping machine laps a ground fabric and the goods produced are elastic in both the longitudinal and transverse directions.

It is known to attain this object by carrying out underlaying operations when the rubber threads are gathered which are thus bound toward the sides with the result that the goods are elastic also in transverse direction. It has been found, however, that goods of this type tend to roll in from the longitudinal edges and are therefore not very well suited for further working.

The method according to the invention eliminates this drawback by gathering the rubber warp threads to be underlaid in two lapping machines which are racked in opposite direction to one another or which carry out underlaying operations differing in magnitude.

By way of example, the invention is illustrated in the accompanying drawing, in which Figures 1 and 2 show two lapping diagrams.

The ground fabric is formed of the threads 1 drawn into the lower lapping machine which, as shown in Figs. 1 and 2, laps under 1 over 1 and back. The rubber warp threads 2, 3 are gathered in two lapping machines disposed under the lower machine and carrying out underlaying operations by being racked either in opposite directions to one another, as shown in Fig. 1, or in the same direction. In the latter case, the two rubber thread lapping machines carry out underlaying operations differing in size. For clearness' sake the drawing shows only one thread each of the two rubber thread groups. The gathering of the two machines depends upon the extent to which the fabric is to be provided with rubber threads. In case of goods to be only partially provided with rubber threads each elastic point is formed of a rubber warp thread 2 of one machine and of a rubber warp thread 3 of the other machine.

It is further possible to use a fourth lapping machine disposed under the rubber thread lapping machines and gathering textile threads so as to connect a fabric layer with the ground fabric. The threads of the fourth lapping machine are designated 4 and, like the threads 1, are lapped over 1 and under 1 and back. This provides for the covering of the rubber warp threads on the rear side of the fabric.

The ground fabric may of course be lapped in a manner differing from the one shown, and this applies also to the covering layer formed of the threads 4. The lapping method of the rubber threads is also immaterial. The important feature is that they carry out underlaying operations and are drawn in two lapping machines to provide for lapping opposite to each other or in paths differing in size.

I claim:—

1. A method of producing warp goods provided with rubber warp threads on a warp frame having only one row of needles, comprising lapping a ground fabric with the lower machine and carrying out underlaying operations with the rubber threads to make the goods elastic in both the longitudinal and transverse directions, the lapping machine for the rubber threads being racked in opposite direction to the first-mentioned machine.

2. A method according to claim 1, wherein another lapping machine disposed over the rubber thread lapping machine connects a textile fabric layer covering the rubber threads with the ground fabric.

3. A method according to claim 1, wherein the rubber warp threads are gathered by two lapping machines which are racked in opposite directions to each other, so that a rubber thread from one of the two last-mentioned lapping machines always crosses a rubber thread from the other one of the two last-mentioned lapping machines.

4. A method according to claim 1, wherein the rubber warp threads are gathered by two lapping machines carrying out underlaying operations which differ in size from each other, so that a rubber thread from one of the two last-mentioned lapping machines always crosses a rubber thread from the other one of the two last-mentioned lapping machines.

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