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WOVEN FABRIC

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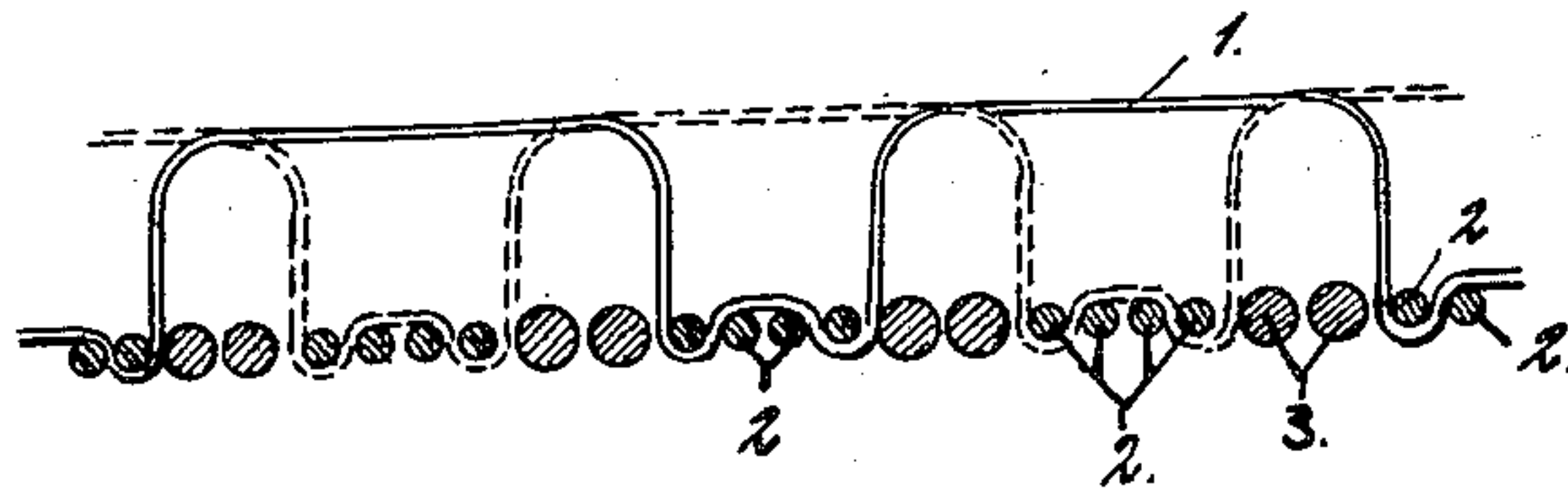


Fig. 1.

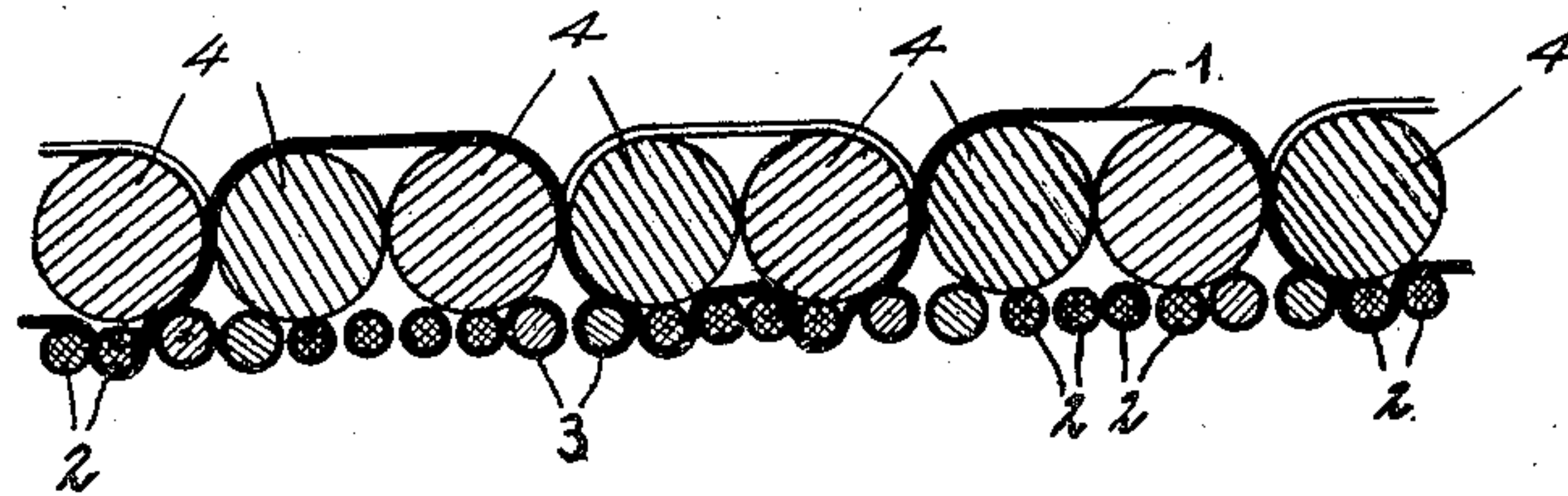


Fig. 2.

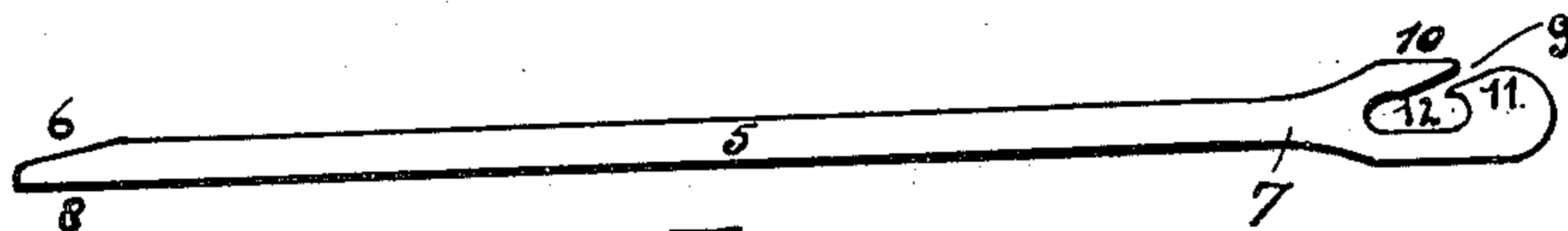


Fig. 3

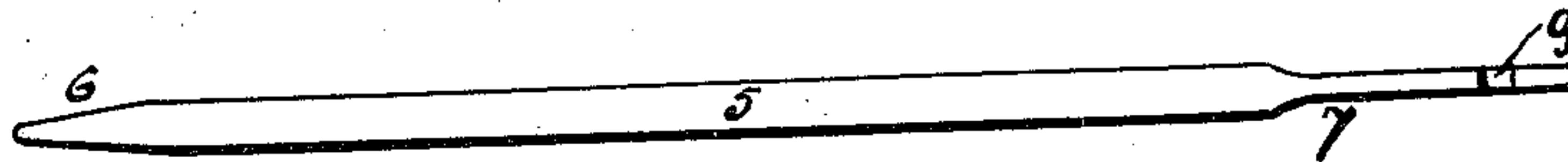


Fig. 4.

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2 Claims. (Cl. 139—391)

The present invention relates to woven fabrics and more particularly to a woven ground fabric adapted to be used for hand embroidery, and a method of manufacturing the said fabric. Hand embroidery work is becoming at the present time of greater and greater importance not only as a means for earning a living but also as a hobby or pastime. However, in such work there is a difficulty arising from the fact that relatively considerable labour is involved in giving the necessary tension to the threads and in passing the tubes or shuttles through the fabric.

The principal object of the present invention is to provide a woven ground fabric particularly adapted to be used for hand embroidery, wherein the above-mentioned difficulties are eliminated. The principal object of the invention is to provide a yarn layer comprising groups of thin weft threads alternating regularly with groups of thick weft threads all said weft threads being interwoven with warp threads in a manner known per se, wherein some of the warp threads serve for the reception of the embroidery and are arranged perpendicularly to the weft threads of the ground fabric in such manner that each of the last named warp threads is tightly interwoven with, i. e. tightly attached to individual groups of thin weft threads which are not located adjacent to one another whilst the parts of the warp thread located between the said interwoven parts each form a kind of loose loop which in each case bridges over the group of thick weft threads adjacent to the interwoven group of thin weft threads, the succeeding group of thin weft threads and the next succeeding group of thick weft threads adjacent to the latter. It is also possible to provide some weft threads running parallel to the ordinary wefts of the layer and formed with retaining loops for the reception of the embroidery.

The advantage of employing the ground fabric is that it is not necessary for the worker to be located at a certain definite place where special tools or manipulating devices are available in order to produce the hand embroidery work. The ground fabric as also the shuttle employed for the weaving and the weft threads can be arranged anywhere and the worker can occupy any desired position, for instance he or she may be standing up, lying down or sitting down.

A preferred method of carrying out the invention in practice is illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a cross section of the ground fabric

taken in a direction perpendicularly to the weft threads thereof,

Fig. 2 is a cross section of the hand embroidered fabric taken in a direction perpendicular to the weft threads of the ground fabric and showing the warp threads arranged perpendicularly to the weft threads of the ground fabric,

Fig. 3 is an elevation of the shuttle or needle employed for the hand embroidering of the fabric, and

Fig. 4 is a plan of the said shuttle or needle. Referring to the drawing:

The reference numeral 1 denotes a warp thread which is intended for the reception of the embroidery; the reference numeral 2 denotes the thin weft threads and the reference numeral 3 the thick weft threads of the lower ground fabric. The shuttle or needle 5 is provided with a point 6 having an oblique portion 8 and a flattened end 7 forming an eyelet 12 having an admission passage 9, the parts 10 and 11 forming the walls of said passage being located in a superposed position.

The ground fabric consists of the warp threads 1 together with the thin weft threads 2 and the thick weft threads 3. Each of the warp threads 1 is arranged in such manner that the interwoven part is associated with a group of thin weft threads 2 and then forms a kind of loop which bridges over the thick weft threads 3 adjacent to it, the succeeding group of thin weft threads 2 and the next succeeding group of thick weft threads 3. The warp threads 1 are arranged at distances of about 4 millimetres apart according to the thickness required for the weft threads which have to be passed through for the embroidery work. The attachment to the fabric of the yarn layer is effected by weaving into it two weft threads 2 of one group which are passed above the warp thread 1 in such manner that the intermediate part of the warp thread is directed transversely to the group of weft threads 2. The group of weft threads 2 constitutes as it were a passage or slot between the thick weft threads 3 in the fabric of the yarn layer. The points of attachment, i. e. the interwoven points of the warp thread 1, are displaced with regard to one another in such manner that each warp thread located at a slot or passage is succeeded by a warp thread forming a loop above the said passage or slot, as is indicated in dotted lines in Fig. 1.

For the purpose of producing the embroidered fabric the procedure is as follows: A weft thread, which may be coloured or not, is introduced into

the eyelet 12 of the flattened end 7 of the shuttle or needle 5 through the passage 9. Then the said shuttle or needle with its point forwardly directed and its flattened end 8 directed towards the ground fabric is passed through the loops formed by the warp threads 1. The shuttle or needle 5 is thus directed more or less across the passage formed by the thin weft threads 2 of the ground fabric. The number of weft threads 2 contained in a group is made such that the breadth of the passage corresponds approximately to the width of the shuttle or needle 5. By drawing the shuttle or needle 5 gradually through the work it is made to pass alternately under a loop of the warp thread 1 and above the adjacent part of the succeeding warp thread in such manner that the weft thread 4 is woven in with the warp threads 1. Owing to the displacement with regard to one another of the interwoven parts of the warp threads 1 the result is obtained that the weft threads 4 are located one against the other.

I claim:

1. A woven ground fabric adapted to be used for hand embroidery consisting of a yarn layer comprising groups of thin wefts alternating regularly with groups of thick wefts and wherein some of the warps of the layer form loose loops, which bridge a group of thick wefts, the adjacent group of thin wefts and the next group of thick wefts.
2. A woven ground fabric adapted to be used for hand embroidery consisting of a yarn layer comprising groups of thin wefts alternating regularly with groups of thick wefts, the warps of the layer including some warps which form loose loops, which latter bridge a group of thick wefts, the adjacent group of thin wefts and the next group of thick wefts, and further comprising threads parallel to the wefts of the layer also forming loose loops, and bridging a certain number of warps of the layer.

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