## H. HÄBERER.

## METHOD OF MANUFACTURING EMBROIDERY.

APPLICATION FILED FEB. 21, 1907.

FIG.1.

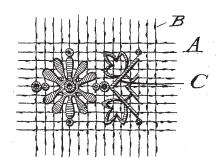
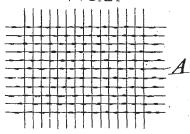
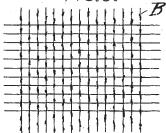


FIG.2.





Mitnesses: C. H. Taylor: J.J. M : Corthy

## UNITED STATES PATENT OFFICE.

HERMANN HÄBERER, OF RODEWISCH, GERMANY.

## METHOD OF MANUFACTURING EMBROIDERY.

No. 865,640.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed February 21, 1907. Serial No. 358,599.

To all whom it may concern:

Be it known that I, HERMANN HÄBERER, a subject of the German Emperor, and residing at Rodewisch, i. V., Germany, have invented a certain new and useful Improved Method of Manufacturing Embroidery, of which the following is a specification.

The present invention relates to an improved method of manufacturing embroidery in accordance with which the embroidery is arranged on a specially prepared ground-work, the embroidery being afterwards liberated from the ground-work by the latter being corroded.

Embroidery which was to be manufactured by means of shuttle embroidering machines has hitherto been made on wool or silk material which was removed by corrosion after the production of the finished embroidery. On account of the great elasticity and smoothness of the wool or silk threads, such a ground-work or base is able to yield and give way towards all directions, and thus embroidery which is produced thereon cannot turn out so correctly as would be generally expected from machine work.

Now an important object of the present invention is to give the ground-work material greater firmness than has been the case hitherto, besides the property of its 25 being able to be removed with caustics without injuring the embroidery. Namely, whereas the textile fabric of the ground-work material has hitherto been manufactured of wool or silk threads, which in themselves were smooth and elastic, in accordance with the 30 present invention a bourette thread, which is made of waste silk, is employed which is provided with little knots, so-called burls or naps, which prevent the threads yielding or giving way during the process of embroidering. Moreover, as the bourette threads are in them-35 selves but very slightly resilient, distortion of the texture cannot take place in the direction of the threads when they are put into or stretched in the embroidering machine. When the embroidery is finished, the texture which forms the base is removed in known 40 manner, for example with soda or the like.

The bourette threads, the employment of which is an essential feature of the present invention, are spun threads which are made of waste silk on machines for making thread (Streichgarnmaschinen). This so-45 called bourette material with its characteristic burls or naps is only formed after raw silk has been worked up several times. The material for pure silk thread is first combed out of the raw silk. The remnant, so-called chappé, is then obtained from which chappé silk thread is produced. Now when chappé is combed another remnant or waste is obtained, and this is called bourette. This bourette waste receives the naps, which are essential for the present method, by its being frequently combed. The bourette thread is spun on 55 quite different machines as compared with those em-

ployed for pure silk and chappé.

In order that the invention may be more clearly understood reference is made to the accompanying drawing in which some forms of a texture which are particularly suitable for forming the ground-work for em- 60 broidery made in accordance with the present invention are represented on an enlarged scale by way of example, and in which:

Figure 1 represents a texture with weft A and warp B of bourette, with embroidery C thereon; Fig. 2 repre- 65 sents a texture in which the weft threads only are of bourette, and Fig. 3 shows a texture in which the warp threads only are of bourette.

Referring to Fig. 1, in textures in which the weft and warp consist of bourette threads yielding is completely 70 prevented by the naps which are present.

In order however to avoid offering too great resistance to the embroidery-needle, which indeed might cause the latter to break, textures such as are represented in Figs. 2 and 3 may also be employed, in which only 75 the weft A or only the warp B are bourette threads, whereas the threads which cross these consist of a smooth material, for example worsted, which likewise is capable of removal by corrosion by means of soda or the like.

I am aware that bourette threads have been employed hitherto both for the warp and for the weft of textile materials in the manufacture of fabrics, and I therefore do not claim such manufacture broadly. I am also aware that embroidery has been produced by 85 first embroidering vegetable fiber on a ground of animal fiber, and then dissolving the latter in a solution of chlorid of lime, and I therefore do not claim such a process broadly; but

I claim:

1. A method of manufacturing embroidery consisting in making a ground-work fabric into which bourette threads of waste silk are woven, in embroidering a pattern thereon and in removing said ground-work by corrosion.

2. A method of manufacturing embroidery consisting in 95 making a ground-work fabric into which bourette threads of waste silk are woven as the weft, in embroidering a pattern thereon and in removing said ground-work by corrosion.

3. A method of manufacturing embroidery consisting in making a ground-work fabric into which bourette threads of waste silk are woven as the warp, in embroidering a pattern thereon and in removing said ground-work by corrosion.

4. A method of manufacturing embroidery consisting in making a ground-work fabric into which bourette threads of waste silk are woven as the weft and warp, in embroidering a pattern thereon and in removing said groundwork by corrosion.

In testimony whereof I have signed my name in the 110 presence of the two subscribing witnesses.

HERMANN HÄBERER,

90

KARL WERNER, ALOIS W. ITMANN.