

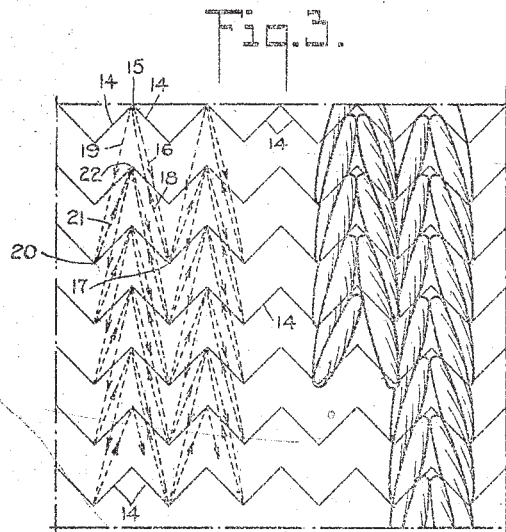
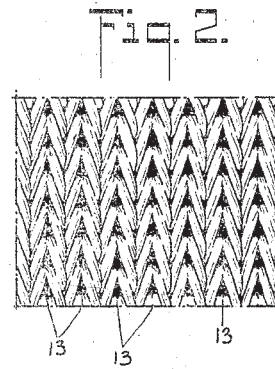
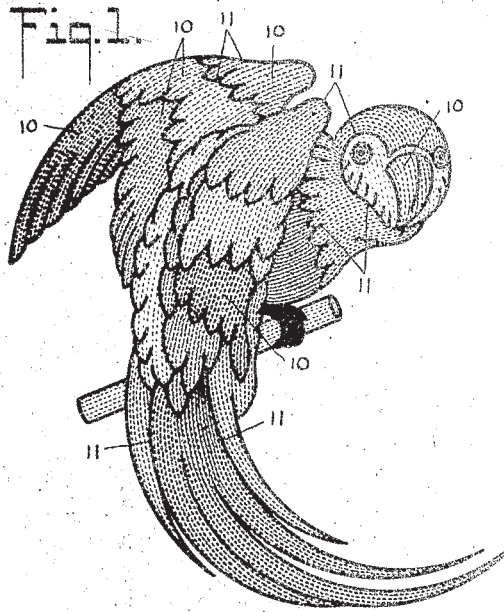
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EMBROIDERY PATTERN AND METHOD OF MAKING THE SAME

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EMBROIDERY PATTERN AND METHOD OF MAKING THE SAME.

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To all whom it may concern:

Be it known that I, KURT LEHMANN, a citizen of the United States, and a resident of the city of New York, county of New York, and State of New York, have invented certain new and useful Improvements in an Embroidery Pattern and Method of Making the Same, of which the following is a specification.

My present invention relates generally to embroidery, and has particular reference to an embroidery pattern or stitch produced in accordance with a novel method.

It is among the more important objects of the invention to provide an embroidery pattern comprising a plurality of adjacently disposed rows which may be associated with each other along predetermined curves and contours to produce desired designs and figures.

It is a more specific object of the invention to provide a pattern of this nature wherein a resemblance to a chain stitched ornamentation is produced. More particularly, it is an object of the invention to provide a composite design wherein the stitching is arranged in rows as hereinbefore mentioned, and wherein each row is so constructed as to resemble a chain stitch.

An object of my invention is to produce rows of stitching of this character, having an outward resemblance to a chain stitch, yet constituted of individual stitches which are entirely straight and which may therefore be produced on the well-known Schiffli machines.

Another object is to produce a stitch of this general character wherein the individual stitches are much more closely arranged with respect to each other than would be possible in the case of an ordinary chain stitch, whereby the base material is effectually concealed to a degree far exceeding that which even a tightly arranged chain stitch would produce.

A feature of my invention lies in arranging a series of angular stitches in closely nested positions, and properly coordinating not only the closeness, but also the angularity and the thickness of thread, so that an entirely novel effect is produced of the character hereinbefore referred to.

Another feature of the invention lies in laying these stitches in a predetermined sequence which not only permits a continuous

thread to be utilized, but which bears a certain-correlation to the factors of angularity, spacing, and thread thickness hereinbefore mentioned whereby the desired effect is produced.

In a preferred embodiment, each angular stitch comprises two sides of equal length, and each side is laid by a stitch which has its origin at the apex of the angle.

The objects generally of my invention are to produce an embroidery pattern which will have wide applicability, particularly in the manufacture of ornamental figures and designs capable of being appli- qued, as by sewing or gluing, to a wide variety of articles, to be ornamented, such as lampshades, shawls, scarfs, blankets, dresses, and innumerable others, and to provide a pattern which will be not only inexpensive from the standpoint of manufacture but which will produce an extremely pleasing outward appearance and which will present an exposed surface of a substantially solid character having improved qualities of firmness and wearability.

For the attainment of the foregoing objects and such other objects as may hereinafter appear or be pointed out, I have illustrated one embodiment of my invention in the accompanying drawings, in which—

Fig. 1 is a plan view of a figure which is illustrative of the almost unlimited variety of ornamental figures whose production is contemplated by my invention;

Fig. 2 is an enlarged view of a portion of the pattern; and

Fig. 3 is a diagrammatic representation of a preferred method of laying the stitches to produce the pattern.

The illustrative figure shown in Fig. 1 comprises a number of adjacently arranged areas, each of which is constituted of a plurality of closely adjacent rows of stitching, the rows being arranged along lines and contours which depend upon the representation desired and which enhance the finished appearance of the pattern. Each area is preferably constituted of a single color, and by properly designing various areas in different colors, a large variety of extremely ornamental finished patterns or figures may be produced. Separating the areas, and disposed generally throughout the figure in accordance with requirements, lines of preferably solid black are provided, and these lines may be

produced in any desired manner, preferably of a width substantially less than the width of the colored rows forming the body of the design, and preferably constituted of a series of ordinary transverse stitches closely positioned to produce an unbroken line. The utilization of lines 11 is optional, and has no material effect upon the invention other than enhancing the appearance of the finished article and defining boundary lines between areas of different colors.

Each area 10 is constituted of a plurality of adjacently disposed rows 13 (see Fig. 2), each row presenting an outward appearance which resembles a chain stitch, but which is produced by an entirely different method wherein all the stitches are straight lines and wherein the finished result is extremely more uniform and closely arranged than would be the case with a true chain stitch. Reference to Fig. 2 will illustrate this outward resemblance to a chain stitch with great clearness.

In Fig. 3, I have illustratively and diagrammatically shown how I prefer to produce the effect shown in Fig. 2. In cases where my invention is applied to machine embroidery, and more particularly in cases wherein the Schiffli machine is utilized, a pattern or "cartoon" is provided bearing the general configuration and design of the article to be produced on a greatly enlarged scale, and bearing also a number of lines and indicia in a predetermined and pre-designed arrangement whereby the operator may in a predetermined manner utilize this cartoon as a guide in manipulating the machine. In Fig. 3, I have illustratively shown a portion of the markings of a cartoon of this character, and more particularly, I have shown a portion which may be utilized by an operator in producing that portion of the finished design shown in Fig. 2. For each finished line or row of stitching to be produced on the machine there is provided on the cartoon a row of angles 14 suitably spaced and of suitable angularity in accordance with previous experimentation and design. I prefer to make these angles substantially rectangular, but it will be understood that the particular angularity and the spacing will depend upon requirements and circumstances, and will bear a certain relation to the thickness of thread to be used, size of stitch desired, etc. Each angle has equal sides and in cases where the adjacent rows are straight, the terminal ends of each angle coincide with the terminal ends of the angles representing the adjacent row.

The operator starts at the apex of one of the angles and lays a stitch from that point to the terminal end of the next adjacent angle but one. He then lays a return-stitch to the starting point so that the

other side of the angle being laid may also originate at the same starting point. After the second side has been laid, a short connecting or positioning stitch is made, extending from the free end of the last laid side to the apex of the next adjacent angle. The process is then repeated, and for purposes of illustration, I have indicated the steps by reference numerals, and assuming that the operator starts at the apex 15, he lays a stitch 16 to the free end 17 of the second adjacent angle; he then lays a return stitch 18 back to the starting point 15; and he then lays a stitch 19 to the terminal end 20 which corresponds to the end 17. A connecting stitch 21 is then laid to the apex 22 of the next adjacent interior angle on the cartoon, and from the apex 22 as a starting point the steps are repeated.

It will be observed that the apices 15, 22, etc., constitute midpoints of the chain to be laid, and that the points 17 and 20 constitute advanced points on opposite edges thereof. It will also be observed that the angularity of the finished stitches is substantially smaller than that of the indicating lines upon the cartoon. This exact angularity will depend upon the other factors hereinbefore mentioned, and in general, I have found that the spacing and angularity of the finished stitches must be of such a character with respect to the thread thickness that the free terminal ends of each laid angular stitch will be covered over and concealed by the next adjacent interior angular stitch. It is this concealment and overlapping of the end portions of the angular stitches which produces the effect shown in Fig. 2 and is distinctive of my invention. In this connection, it will be observed that the apparent angularity of the finished pattern is greater than the actual angularity laid. This may be due to the falling of the apex under the tension of the thread as it is laid, and it may also be due to the overlapping hereinbefore referred to. It will be understood however that this variance between the apparent angularity produced and the actual angularity laid is a still further factor which must be considered and taken into account in the initial design and lay-out of the cartoon pattern.

In the right half of Fig. 3, I have illustrated the actual stitches laid in accordance with the method diagrammatically illustrated in the left half of the same figure. Both Fig. 3 and Fig. 2 are somewhat exaggerated the latter being approximately four times as large as a preferred size of stitch, but the closeness of the stitch will be evident, particularly when considered in comparison with ordinary chain stitching. In addition to concealing the base fabric to a greater degree in a longitudinal direction with respect to the rows, it is possible ac-

ording to my method to lay the rows in closer transverse adjacency than would be possible with chain stitching; and accordingly an improved outer surface is produced
5 having greater solidarity, firmness, and wearing qualities. At the same time a novel and distinctive effect is produced which lends itself particularly to the uses of the character illustratively exemplified in Fig. 1.

10 An important feature of my invention is the laying of stitches in such manner that interesting overlapping angles or V-like or inverted V-like configurations are formed by the stitching, such angles forming a single
15 longitudinal interested overlapping row of V-like configurations, the row as a whole being laid with the apices of the angles or V-like configurations substantially along a predetermined line of any chosen configuration, such row being obviously exactly one
20 angle or one V wide. As many of these rows are laid side by side, or laterally, as the desired pattern requires. It will be apparent that this feature is independent of the interrelationship of the plurality of laterally
25 laid rows, that is, it is independent of whether such laterally laid rows are spaced apart from each other, or whether they touch each other, or whether they overlap each other. However, as a rule it is generally desirable that the single rows are laid so closely to each other as to effectually
30 cover the base fabric, unless it should be desired to have this base fabric show at open spaces. By the expression "one angle wide" occurring in the claims, I mean to define such a series of angles as that just described, even though a plurality of such series laid side by side may be present in
35 the pattern.

It will be obvious that various changes in the details herein described and illustrated for the purpose of explaining the nature of my invention may be made by those skilled in the art without departing from the spirit and scope of the invention as expressed in the appended claims; and it is therefore intended that these details be interpreted as illustrative and not in a limiting sense.

50 I claim:—

1. In an embroidery pattern, a single thread forming a series of groups of stitches positioned to form an exactly one angle wide series of longitudinally nested angles, the separated ends of the sides of each angle being partially but substantially overlapped by portions of the sides of the next adjacent enclosed angle.

60 2. In an embroidery pattern, a single thread forming a series of groups of purely straight stitches arranged to form nested angles, at least the interior longitudinal half of the separated ends of the sides of each angle being overlapped by portions of the
65 sides of the next adjacent enclosed angle.

3. An embroidery article comprising a plurality of adjacent chain-like patterns, each of the latter comprising a series of groups of straight stitches arranged in nested angular positions, each angle having
70 portions of its separated ends overlapped and concealed by portions of the sides of the next adjacent enclosed angle, and each angle comprising a side constituted of at least two superposed stitches. 75

4. The herein described process of making an embroidery pattern which comprises laying a group of straight stitches along lines defining an angle, then as the next step positioning and laying a group of straight
80 stitches along lines defining an angle nesting therewithin and causing portions of the sides of such nesting angle to overlap portions of the separated ends of its next adjacent enclosing angle, and repeating said
85 steps to produce a pattern simulating a chain.

5. The herein described process of making an embroidery pattern, which comprises laying in succession a series of groups of
90 straight stitches from a single thread to form an exactly one angle wide series of longitudinally nested angles, and causing the sides of each angle to overlap portions of the separated ends of the sides of the enclosing angle by suitably correlating the
95 angularity, spacing, and thread thickness of each angle.

6. The herein described process of making a chain-like embroidery pattern, which
100 comprises laying a continuous thread to form a stitch from a midpoint of the chain to an advanced point on one edge thereof, laying a return stitch thereover, laying a third stitch to an advanced point on the other edge to define an angle, laying a connecting
105 stitch to a midpoint advanced with respect to the first midpoint, and repeating the steps to form a series of nested angles.

7. The herein described process of making a chain-like embroidery pattern, which
110 comprises laying a continuous thread to produce a stitch from a midpoint of the chain to an advanced point on one edge thereof, laying a return stitch thereover to return the continuous thread to the midpoint, laying a third stitch to a similar and symmetrically advanced point on the other edge whereby
115 an angle having equal sides is produced, laying a connecting stitch from the last named point to a midpoint in advance of the first midpoint but within the sides of the angle, whereby the second midpoint will constitute a starting point for the laying of
120 a nesting angle, and thereupon repeating the steps from said last named starting point.

8. The herein described process of making a chain-like embroidery pattern, which
125 comprises laying a continuous thread to produce
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a stitch from a midpoint of the chain to an advanced point on one edge thereof, laying a return stitch thereover to return the continuous thread to the midpoint, laying a third stitch to a similar and symmetrically advanced point on the other edge, whereby an angle having equal sides is produced, laying a connecting stitch from the last named point to a midpoint in advance of the first midpoint but within the sides of the angle, whereby the second midpoint will constitute a starting point for the laying of a nesting angle, thereupon repeating the steps from said last named starting point, and laying each angle so that portions of the sides thereof will overlap portions of the separated ends of the sides of the previously laid angle.

In witness whereof, I have signed this specification this 12 day of January, 1926.

KURT LEHMANN.