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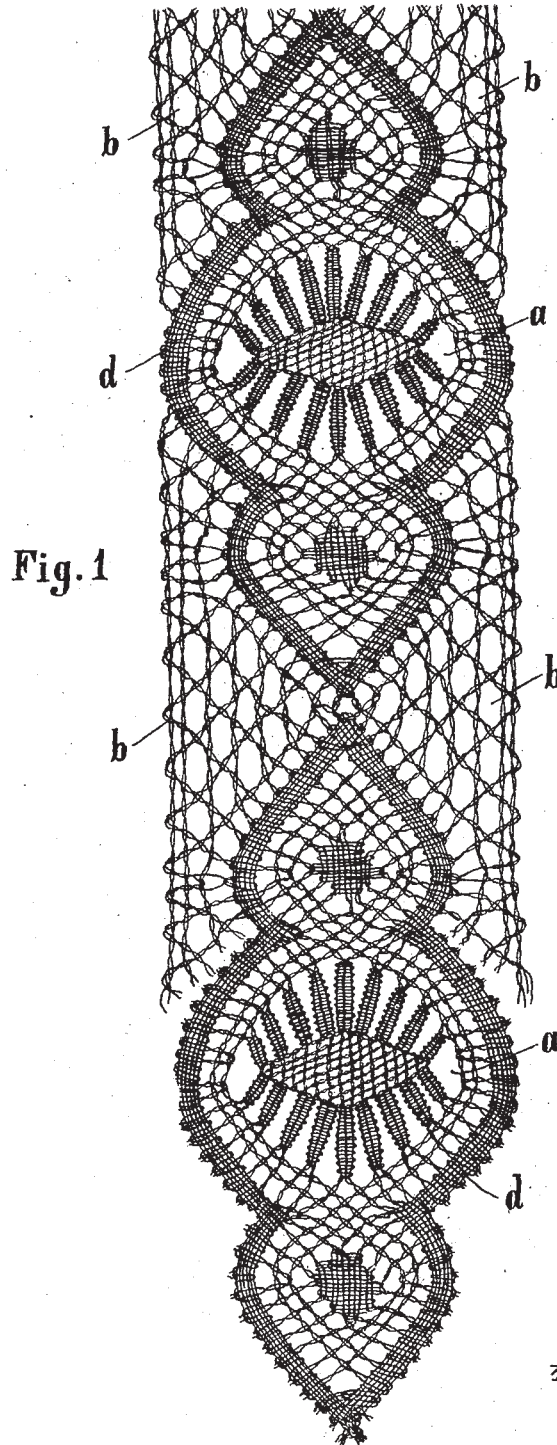
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MACHINE BRAIDED LACE INSERTION AND METHOD OF MAKING THE SAME

Filed April 9, 1926

3 Sheets-Sheet 1



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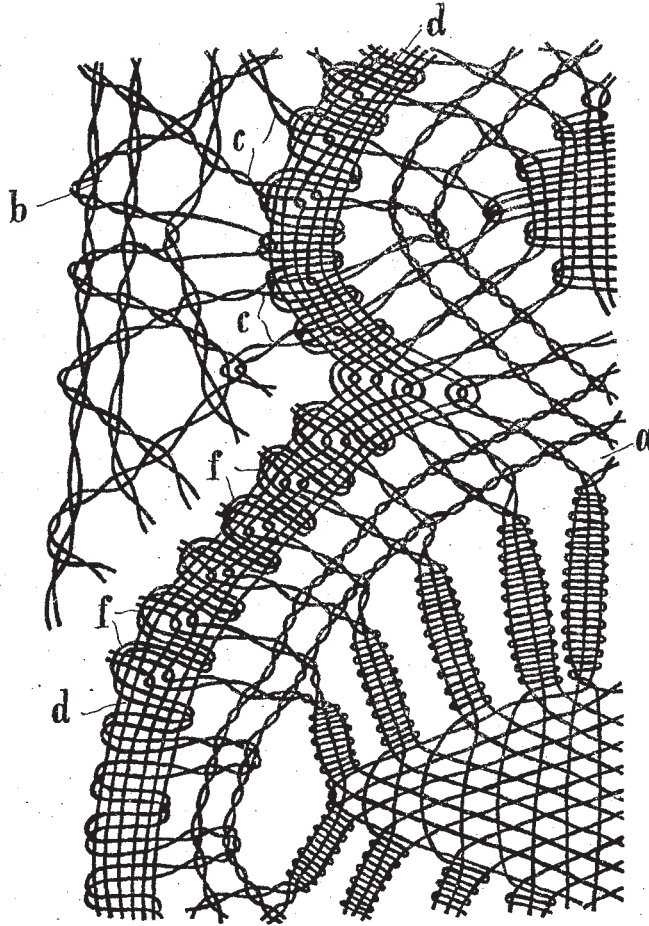
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Fig. 2



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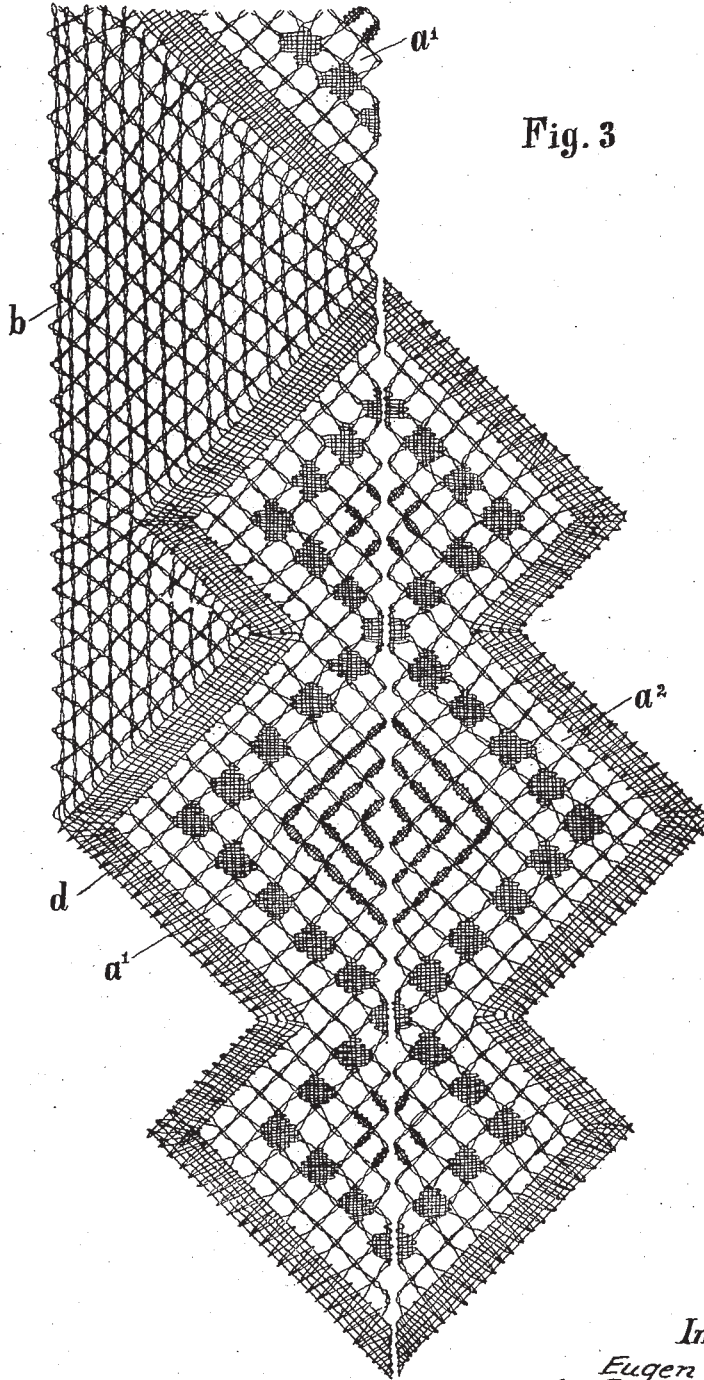


Fig. 3

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MACHINE-BRAIDED LACE INSERTION AND METHOD OF MAKING THE SAME.

Application filed April 9, 1926, Serial No. 100,792, and in Germany October 6, 1925.

The present invention relates to the production of braided lace-insertions (so-called "motives") for table covers or centres, curtains and similar articles. It is already known to produce such insertions in the braiding machine in the form of a continuous lace, worked if desired as a closed tube which, by being cut up, is divided into separate insertions. Hitherto however the process consisted in forming the entire lace of insertions, directly abutting one another with their edges running either at right angles to the longitudinal direction of the lace or in a diagonal direction. In consequence of this there can be produced, according to the known process, only insertions having straight edges, namely either rectangular or square insertions. A further drawback of the known process is that the insertions formed by cutting up the continuous lace do not possess firm edges and consequently they readily fray out at the edges.

The subject-matter of the present invention is a process of producing machine-braided lace insertions for table covers or centres, curtains and similar articles which obviates the above-described drawbacks and enables lace insertions to be produced which may possess not only straight, but also convex, wavy or zig-zag edges and thus patterns of desired contour and at the same time are bounded by firm edges which are not liable to fray out.

According to the new process the insertions are produced as portions of a continuous lace with parallel longitudinal edges by those threads not at intervals employed for the insertions being led out of the latter and braided into a groundwork wholly or partly surrounding the insertions and supporting the edges of the latter, while at the same time some of the threads employed in the insertions are returned at the edges of the insertions in such a manner that firm edges are formed there. The insertions so produced in the form of a continuous lace are then liberated by cutting away the groundwork surrounding them.

Two examples of the manufacture of a lace produced according to the new process and containing the insertions are illustrated in the accompanying drawings wherein

Fig. 1 shows a piece of lace according to the first example,

Fig. 2 a fragment of this lace on a much enlarged scale and

Fig. 3 a piece of lace according to the second example.

Referring to the drawings, the lace insertions *a*, *a* shown in Figs. 1 and 2, which are entire or complete in themselves, clearly constitute portions of a continuous lace with parallel longitudinal edges. This lace contains such a number of braiding threads as is necessary for that portion of the insertion which has the greatest width. The lace is produced on the braiding machine by the braiding threads being braided together in the manner determined by the desired pattern of the insertions *a*, *a*. The threads which at times are not required in consequence of the changing width of the insertions from place to place are led out of the ground face of the insertions and braided into a simple net groundwork *b* surrounding the insertions which groundwork supports the edges of the insertions *a* while on its part it is guided at its parallel longitudinal edges. This can be effected in the usual manner either by the longitudinal edges of the lace produced on a mandrel being connected together by auxiliary threads or by the longitudinal edges of the lace being guided on wires.

Those threads, or at least some of them, which are at times not required for the production of the insertions are, before their egress from the insertions *a*, so braided with threads remaining in the latter, that the edge portions of the insertions cannot be displaced relatively to the threads which are led outwardly. According to the drawing this is attained by the threads *c*, before they leave the insertions, being worked for a greater or less length as warp threads into the ribbon-like selvage border strips *d* provided at the edges of the insertions *a* (Fig. 2). On their egress from the insertions, however, said threads are replaced by threads which are led from the interior of the insertions into the selvage strips.

Of the threads remaining at times in the insertions, on the other hand, a number are so guided that they return at the edges of the insertions whereby at these edges firm edges are formed, independently of the threads led out of the insertions. In the drawing the returning edge-forming threads are the weft threads *f* of the ribbon-like strips *d* provided at the edges of the insertions, which weft-threads coming from the interior of an insertion, for a greater or less

length run sinuously to-and-fro and then return into the interior of the insertion.

Obviously in the case of a different pattern for the insertions other desired braiding threads may return at the edges of the insertions for the purpose of forming firm edges, and so also may the threads led out of the insertions be firmly bound together in a manner different from that shown.

The continuous lace comprising a desired number of insertions a , a arranged in succession and simple groundwork portions b surrounding them is cut up into separate insertions after leaving the machine. This is effected by the groundwork portions b , b which serve only as auxiliary means for producing the insertions in the form of a continuous lace, being cut away at the edges of the insertions a , a (see Figs. 1 and 2, below). In this way lace insertions complete in themselves and having firm edges not liable to fray out are obtained. It is obvious that by the new process the lace insertions, since they are worked no longer with their edges directly abutting but into a simple severable groundwork, may have arched or convex edges as desired and therefore any desired contour, in particular a rounded or sinuous one.

When lace insertions of specially large width are to be produced, that is, such insertions as contain at their widest places more threads than the machine at disposal for the manufacture possesses bobbins, then there are produced, instead of complete insertions, only part-insertions, for instance, half-insertions in the form of a continuous lace. The parts are then connected together into complete insertions after they have been separated from the groundwork of the lace.

An example of this lace is shown in Fig. 3, wherein a^1 , a^1 are the half-insertions of the lace, which, in the same manner as above described with reference to Figs. 1 and 2, are produced in the form of a continuous lace by the threads at times not required for the insertions being led out of the ground faces of the insertions a^1 and being braided into a simple groundwork. In this case the groundwork portions b are arranged at only one side of the half-insertions, so forming merely a longitudinal edge of the lace, while the other longitudinal edge is formed by the rectilinear inner edge of the half-insertions a^2 . The firm edges at the boundaries of the insertions are formed, and the edge-portions secured against displacement relatively to the braiding threads led out of the insertions, in the same manner as in the example according to Figs. 1 and 2.

After finishing the lace the half-insertions a^1 are liberated by cutting away the groundwork portions b (see Fig. 1, left and bottom) and then, as indicated by the representation in Fig. 3 of a completely severed half-

insertion a^2 , each two corresponding half-insertions are placed with their straight inner edges abutting and are securely joined together by sewing or in similar manner.

Obviously instead of half-insertions, smaller fractional insertions may be produced in the form of continuous webs of lace and after being cut out may be placed together to form complete insertions: for example, the insertions might be divided into three or four portions, namely one or two middle portions and two side portions, the middle portions and side portions being in each case produced in the form of a separate web of lace.

The new braided lace insertions are advantageously produced on the braiding machine of the Malhère type which operates with one bobbin per plate of the braiding track, but they may be produced on some other braiding machine, for instance, on the so-called two-thread machine, or machine operating with two bobbins per plate. The insertions may be separated from the continuous lace directly after completion of the lace in the factory. The cutting out may however be relegated to the purchaser or user and, to this end, the intermediate product consisting of the continuous lace containing the insertions be put on the market.

What I claim is:—

1. A continuous flat braided motif bearing lace having parallel longitudinal edges and comprising a series of motives and a groundwork surrounding the motives and from which the motives are adapted to be marginally severed, each motif including a body and an edging, some of the threads of the body of each motif being common to the body and groundwork and extending therebetween across the motif edging and braided with the threads of the latter, and some of the threads of the motif body extending to and being braided with the threads of the edging and then returned to the body, said threads reinforcing the motif edging and forming a firm selvaged edging structure from which the groundwork may be severed without impairing the integrity of the threads of the edging.

2. The herein-described method of producing machine-braided motives or lace insertions of the character set forth, which consists in braiding a continuous flat lace with parallel longitudinal edges and consisting of a series of motives, each composed of a body and an edging and a net groundwork connecting and carrying the series of motives, extending the surplus threads from the narrower portions of the motif bodies so as to form the groundwork and braiding said threads at the points of crossing the motif edgings with the threads of the latter, meanderingly extending others of the threads

from each motif body into the motif edging and braiding the same with the threads of the edging and then returning the body threads back to the motif body, whereby the threads so braided with each motif edging will form a firm selvaged edging capable of being severed from the ground work without impairing its integrity, and then cutting away the groundwork surrounding the motives.

3. A machine-braided motif lace according to claim 1, characterized in that the threads leading to and from the motif edging and braided with the threads of the

edging are looped about the threads of the edging. 15

4. A machine-braided motif lace according to claim 1, characterized in that the threads leading to and from the motif edging are sinuously braided with the threads of the edging. 20

5. A machine-braided motif lace according to claim 1, characterized in that the threads leading to and from the motif edging are both looped about and sinuously braided with the threads of the edging. 25

In testimony whereof I affix my signature.

EUGEN TÜRCK.