(No Model.)

J. M. MERROW.

METHOD OF OVERSEAMING FABRICS.

No. 413,531. Patented Oct. 22, 1889.

FIG. 1.

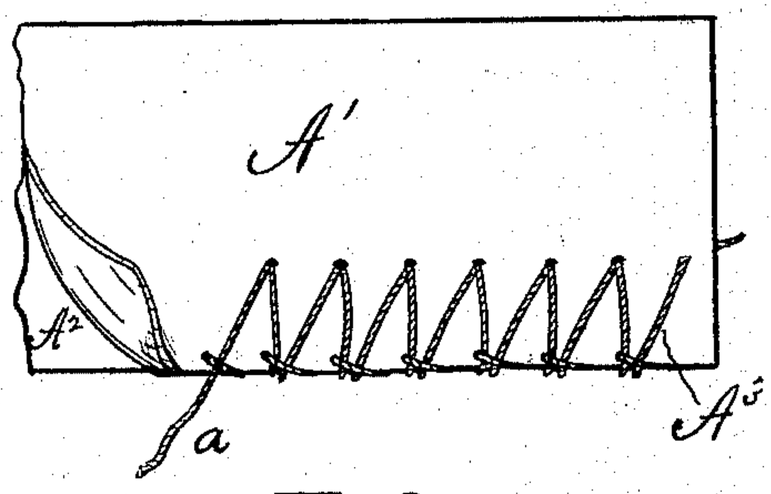


FIG. 2.

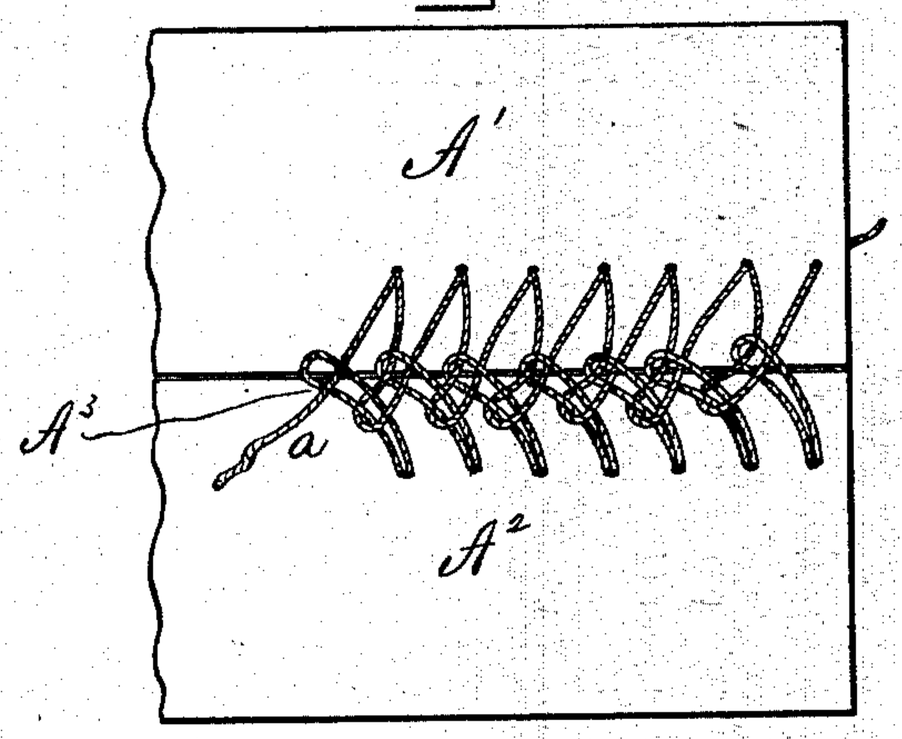
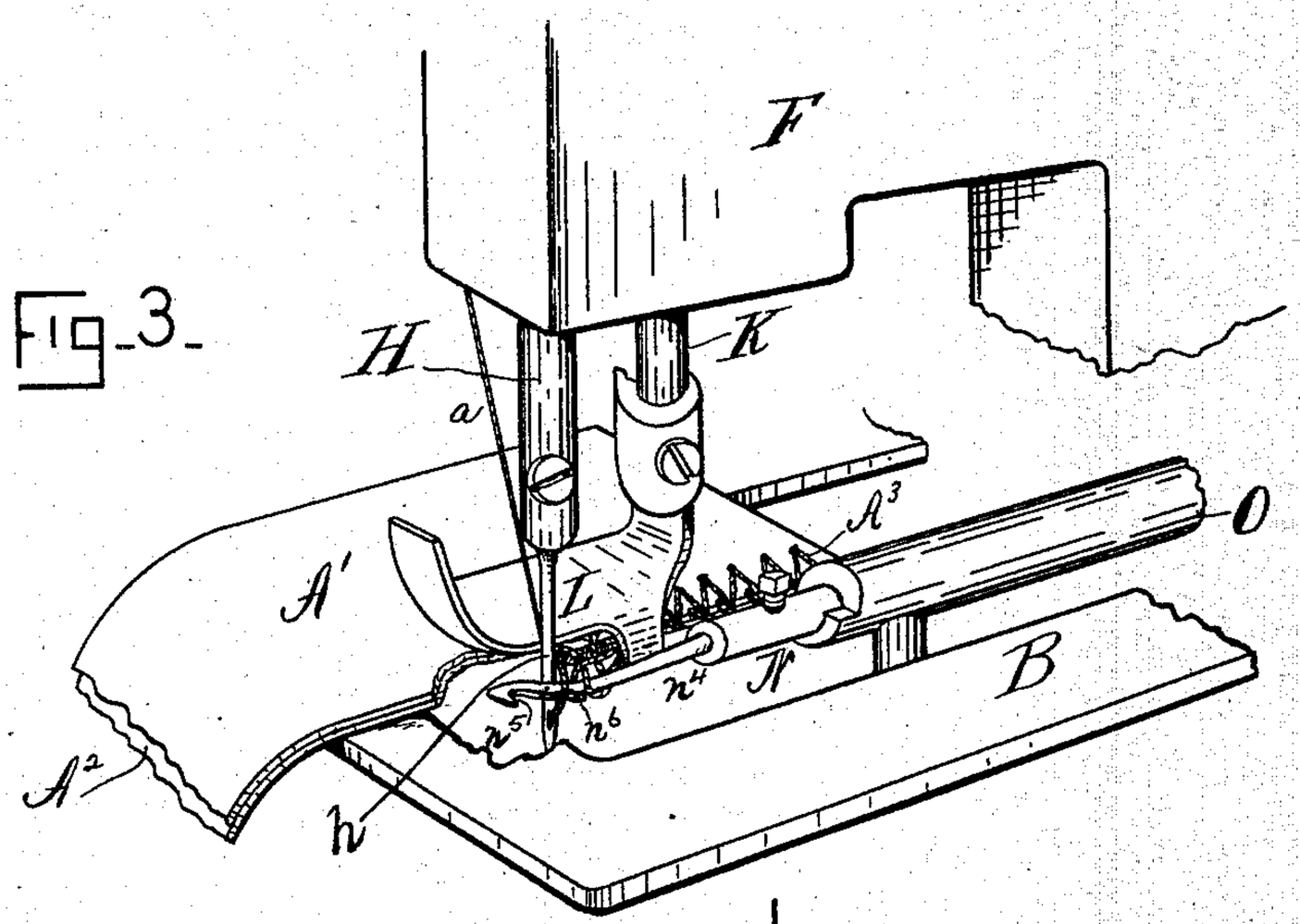


FIG. 3.



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METHOD OF OVERSEAMING FABRICS.

SPECIFICATION forming part of Letters Patent No. 413,531, dated October 22, 1889.

Application filed October 12, 1887. Serial No. 252,183. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. MERROW, of Merrow, in the county of Tolland and State of Connecticut, have invented new and useful Improvements in the Art of Crocheting or Overseaming Fabrics.

This invention relates particularly to overseaming two pieces of fabric together, but also to finishing the edge of fabric.

My object is principally to produce an elastic seam which will cover, protect, and ornament the edge or edges of fabric.

My invention consists in an improved method of forming a crochet seam or finish, whereby one piece of fabric may be crocheted along its edge, or two pieces of fabric may be crocheted or overseamed together by means of a new and improved seam thus formed; or one piece of fabric may be doubled upon itself and crocheted along its edges or along the line where said fabric is doubled.

I accomplish my object by means of a slight modification of a machine which forms the subject of my application for Letters Patent filed on January 18, A. D. 1886, (Serial No. 188,912,) to which reference will hereinafter be made. The modification of said machine consists in giving more throw, or a wider range of motion to some of the parts at the proper times, as will hereinafter be more fully explained.

In the drawings which form a part of this specification, similar letters of reference represent similar parts, and the letters of reference in Figure 3 correspond with the reference-letters used in the drawings which form a part of the specification in my application hereinbefore mentioned.

Fig. 1 is a top view of two pieces of fabric which have been crocheted together along a portion of their adjacent edges, showing a portion of the crocheted seam. Fig. 2 is a view of two pieces of fabric which have been crocheted together along a portion of their adjacent edges, and afterward separated at their free edges and flattened out. Fig. 3 is a perspective view of a portion of a crocheting or overseaming machine, parts being broken away to show the looping apparatus and thread.

A′ and A² represent two pieces of fabric, while A³ represents the improved seam by which said pieces of fabric have been joined.

B is a portion of the bed of the machine, and F is a portion of the case of said machine.

The needle-bar H, which carries the needle *h*, is supported in the case F, as is also the presser-foot bar K, to which is secured the presser-foot L.

The operations of the needle *h* and presser-foot L are substantially the same as in sewing-machines.

O is a sleeve which guides and supports the crochet-hook bar N, carrying the crochet-hook n^4. The said crochet-hook n^4 is provided with a throat n^5 and swinging latch n^6, and is much like the latched needles used in knitting-machines.

The needle-bar H is adapted to be reciprocated vertically. The crochet-hook bar N, with its crochet-hook n^4, is also adapted to be similarly reciprocated vertically, and at the same time to be moved laterally and longitudinally.

The machine is provided with a "feed" similar to that used in sewing-machines.

For a more complete description of the mechanism for imparting the described movements to the several parts, reference may be had to my application hereinbefore mentioned.

To produce my improved stitch, the fabric is placed under the presser-foot L, with the edge of said fabric extending somewhat beyond the point where the needle *h* will pass through the bed B, so that the said needle *h* in its downward passage will pass through said fabric near the edge thereof. The needle *h* is provided with the thread *a*, which thread will be carried down through the fabric by the said needle. When the needle *h* has reached its lowest point, the crochet-hook n^4 will also be in a corresponding position, and will advance and move laterally toward said needle *h* and take the thread *a* from the side of said needle in the form of a loop, which loop will be carried around the edge of the fabric by the said crochet-hook n^4 as the latter retreats, moves laterally away from the said needle *h*, and at the same time rises with the needle *h*. At this time the fabric is fed

along as in sewing-machines. When the crochet-hook n^4 has risen above the edge of the fabric, it moves laterally and advances toward the needle h, reaching around the thread a, which is caught in the throat n^5 of the crochet-hook n^4. By this time the crochet-hook n^4 has advanced far enough to carry its latch n^6 through the loop which was brought up from below the fabric. The crochet-hook n^4 then retreats and moves laterally and downwardly around the edge of the fabric, drawing the thread a from above the fabric through the loop, which was upon the said crochet-hook, the latch n^6 of said crochet-hook being closed by the loop as said loop is shed off from the crochet-hook. The needle h again carries the thread a down through the fabric and at the same time the crochet-hook n^4 is carried downward and again moves laterally and forward to take the loop from the side of the needle h below the fabric, the said crochet-hook advancing far enough to carry its latch n^6 through the loop which was last brought from above the fabric, so that as the crochet-hook retreats and moves laterally while rising again it will shed off said loop which was last brought from above the fabric, drawing the loop last taken from the side of the needle h through said loop last brought from above the fabric when said loop is shed off from the crochet-hook n^4. Continuing the operation, the fabric is crocheted or overseamed along its edge with a succession of loops, each of which loops from one side of the fabric, being drawn through a loop from the opposite side of said fabric.

When two pieces of fabric with their edges adjacent and parallel are placed in position under the presser-foot L, the said pieces of fabric will be connected or overseamed together along their edges by a seam or chain of loops, each loop being drawn through another loop previously made at the opposite side of the fabrics. Such a seam A^3 is illustrated in Fig. 1, and also in Fig. 2, where the two pieces of fabric are shown as separated at their free edges and flattened out.

When a piece of fabric is doubled upon itself and crocheted along its doubled edge in the manner described, an ornamental chain of loops will appear across said piece of fabric when it is flattened out.

The distinctive difference between the stitch herein shown and the stitch made with my machine, as described in my application hereinbefore alluded to, is that when the crochet-hook n^4 is carried forward below the fabric to take the thread from the side of the needle h, said crochet-hook is advanced far enough to carry its latch n^6 through the loop which was brought from above the fabric, and therefore said loop is shed off from the said crochet-hook as the latter is carried backward, outward, and upward, while in former methods the crochet-hook n^4 was not advanced far enough when below the fabric to carry its latch n^6 through the loop which was brought from above the fabric, and therefore said loop would not be shed off from the crochet-hook n^4 until said crochet-hook again advanced above the fabric, when it drew the thread from the needle through the loops which were upon the said hook.

The modification of the motions which is required in the machine forming the subject of my application hereinbefore referred to consists in giving more longitudinal forward throw to the crochet-hook n^4 as the said hook advances below the fabric to take the thread from the side of the needle, and thus carry the latch n^6 through the loop last formed above the fabric, which was not done in the machine alluded to.

Fig. 3 illustrates the position of the crochet-hook n^4 and its latch n^6 in relation to the loops when the said crochet-hook has been advanced far enough below the fabric to take thread from the side of the needle h and to carry the latch n^6 through the loop last made above the fabric.

Having thus described my invention, I now claim—

The hereinbefore-described improvement in the art of forming a seam or finish on fabrics, which consists in passing the thread through the material near the edge thereof, grasping the thread beneath the material and drawing a loop to or beyond the edge, then grasping the thread upon the upper side of the material and drawing a loop therefrom to or beyond the edge and through the preceding loop, passing the thread again through the material, grasping said thread beneath the material and drawing a loop through the second loop, and repeating the process, substantially as described.

JOSEPH M. MERROW.

Witnesses:
JOHN M. THAYER,
GEO. C. PRESTON.