Nov. 7, 1933. C. F. RUBEL 1,934,328

SEAM FOR SEWED ARTICLES

Filed April 15, 1931

FIG. 1.

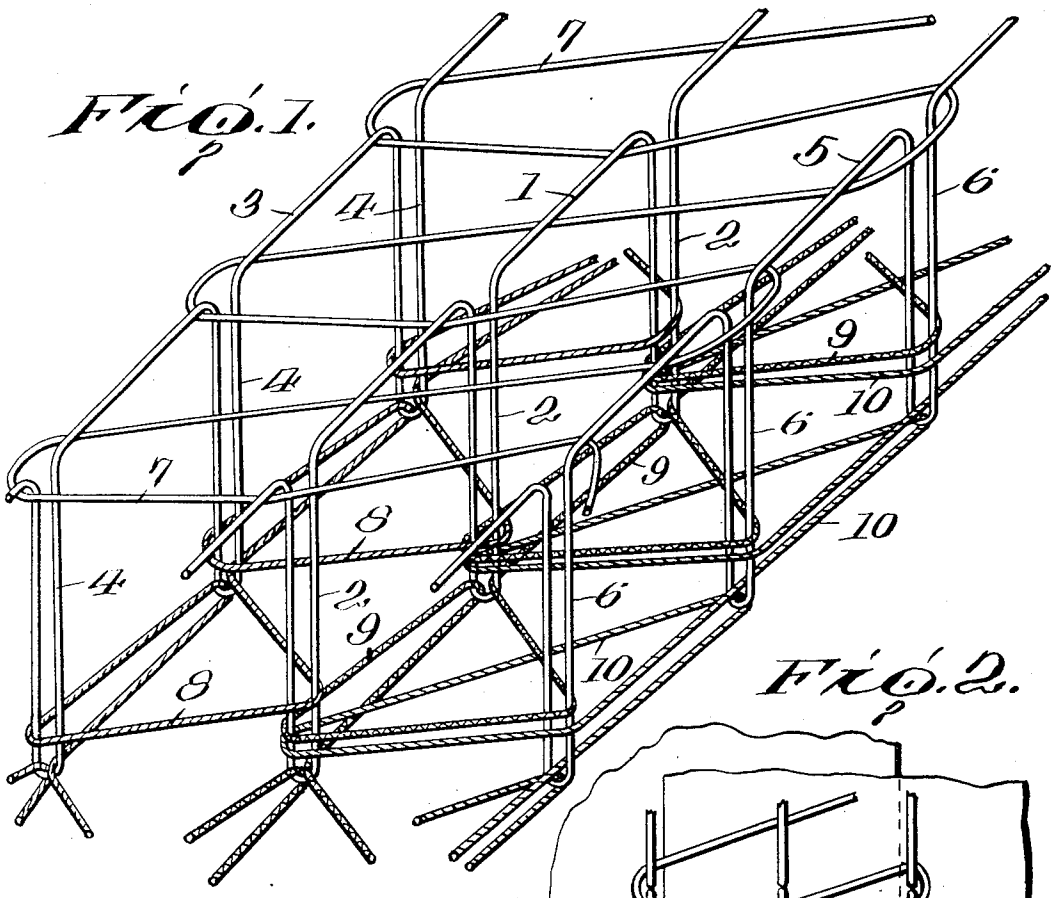


FIG. 2.

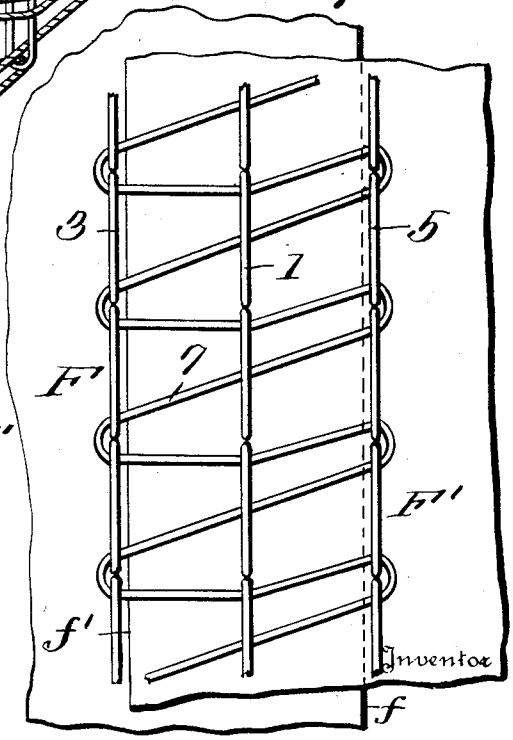
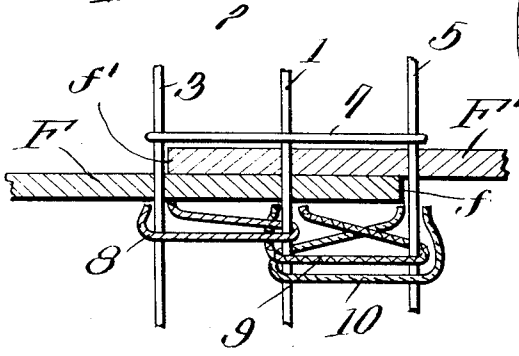


FIG. 3.



Inventor

Charles F. Rubel

By Sturtevant, Mason & Porter

Attorneys

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SEAM FOR SEWED ARTICLES

Charles F. Rubel, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a corporation of Illinois

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1 Claim. (Cl. 112—262)

The invention relates to new and useful improvements in seams for sewed articles, and more particularly to a flat seam for joining the edge portions of knitted fabrics.

An object of the invention is to provide a seam wherein the fabric sections are lapped and secured by needle thread loops passing through the lapped sections, and wherein the edge portions of the fabric sections are covered by stitching threads which include looper threads formed into loops for locking the needle thread loops, which looper thread loops are disposed so that the looper thread loops in adjacent rows overlie and cover the edge of the underlapped fabric section.

In the drawing—

Figure 1 is a top plan view of the seam embodying the improvements;

Fig. 2 is a bottom plan view of the same; and

Fig. 3 is a view showing more or less diagrammatically and in section, the arrangement of the loops in the stitching threads relative to the lapped portions of the fabric sections.

The invention is particularly directed to the securing together of knitted fabric sections. The edge portions are preferably trimmed and lapped to a predetermined extent. These lapped edge portions are secured together by needle thread loops which pass through the lapped sections. The edges of the fabric sections are covered by the stitching threads. There are rows of needle thread loops which pass through the respective fabric sections only and adjacent the edges of said fabric sections. There is a cross thread joining the rows of needle thread loops on one face of the fabric, and this cross thread overlies and covers the edge of the upper lapped fabric section. There is a looper thread associated with each needle thread. Each looper thread has a loop formed therein which is concatenated with a loop in the needle thread with which it is associated. The looper thread loops are extended so as to encircle the two needle thread loops in adjacent rows at each stitch formation. These looper threads loops are disposed so that the looper thread loops of adjacent rows overlie and cover the edge of the underlapped fabric section.

Referring more in detail to the drawing, the under fabric section is indicated at F, and the upper fabric section at F'. The edge portions of the two fabric sections are lapped so that the edge *f* of the fabric section F lies underneath the fabric section F'. The edge *f'* of the fabric section F' lies on the upper face of the fabric section F. The two fabric sections, as shown, are secured together and the edges covered by three rows of needle thread loops, a cover thread and three looper threads. The needle thread 1 is formed into a series of needle thread loops 2, and these needle thread loops are passed through both of the fabric sections F and F' in a line centrally of the lapped portions.

The needle thread 3 is formed into a series of loops 4 which pass through the fabric section F only, and adjacent the edge *f'* of the fabric section F'. The needle thread 5 is formed into a series of loops 6 which pass through the fabric section F' only, and adjacent the edge *f* of the fabric section F. On the upper face of the lapped fabric section is a cover thread 7, which, as shown, is formed into a loop extending underneath the needle thread 5 between consecutive needle punctures, and around the needle loops in the needle threads 1 and 3. This cover thread may be otherwise looped and secured by the needle threads, but the formation shown in the drawing is preferable, for the reason that the looped end of the cross thread overlies and more efficiently covers the edge *f'* of the fabric section F'. The needle thread loops 4 are secured on the under face of the fabric by the looper thread which is formed into a series of loops 8. The loop 8 is expanded and carried laterally during the stitch formation, so that the needles carrying the threads 1 and 3, respectively, pass into and through this loop 8. In the setting of the stitches, the loop 8 in the looper thread surrounds the shanks of the needle threads 2 and 4, that is, loops in adjacent rows. The needle thread loops 2 are locked by the looper thread which is formed into loops 9. There is a loop 9 formed and passed through each needle thread loop 2. This loop is expanded laterally so that the needles carrying the threads forming the loops 2 and 6 will both pass through the loop 9 and it will be drawn around the shanks of the needle thread loops 2 and 6. The needle thread loops 6 are locked by the looper thread which is formed into loops 10, and each loop after it passes through the needle thread loop 6 is expanded and extended so as to be entered by the needles forming both the needle loops 2 and the needle loops 6. This loop 10 is drawn up around the shanks of the needle loops 2 and 6. The edge *f* of the fabric section F lies between the rows of needle loops 2 and 6, and this edge will be covered by both the looper thread loops 9 and 10. Thus it is that the looper thread loops are disposed so that the looper thread loops of

adjacent rows overlie and cover this edge *f* of the underlapped fabric section.

While there has been shown a stitch formation including three needles, it will be obvious that other arrangements might be made. The essential feature consists in the lapping of the edge portions of the fabric sections and the penetrating of the lapped edge portions by at least one row of needle thread loops and the locking of the needle thread loops by looper threads which are disposed so that the looper thread loops in adjacent rows will overlie and cover the edge of the underlapped fabric section.

Having thus described the invention, what I claim as new and desire to secure by Letters-Patent, is—

A seam for sewed articles comprising fabric sections having their edge portions lapped, and stitching threads for joining and covering the lapped edge portions including a plurality of needle threads each of which forms a row of needle thread loops, the needle thread loops of one of said rows passing through the lapped sections, and the needle thread loops in the outside rows passing through the respective fabric sections only and adjacent the edges of the fabric sections, a cross thread joining the rows of needle thread loops on one face of the fabric, a looper thread associated with each needle thread, each of which is formed into loops concatenated with the loops in the needle thread with which it is associated, each looper thread loop encircling two needle thread loops in adjacent rows at each stitch formation, said overlapping of the edge portions being so arranged that the crossing looper threads of both the center row and the outer row adjacent the edge overlie and cover the edge of the underlapped fabric section.

CHARLES F. RUBEL.