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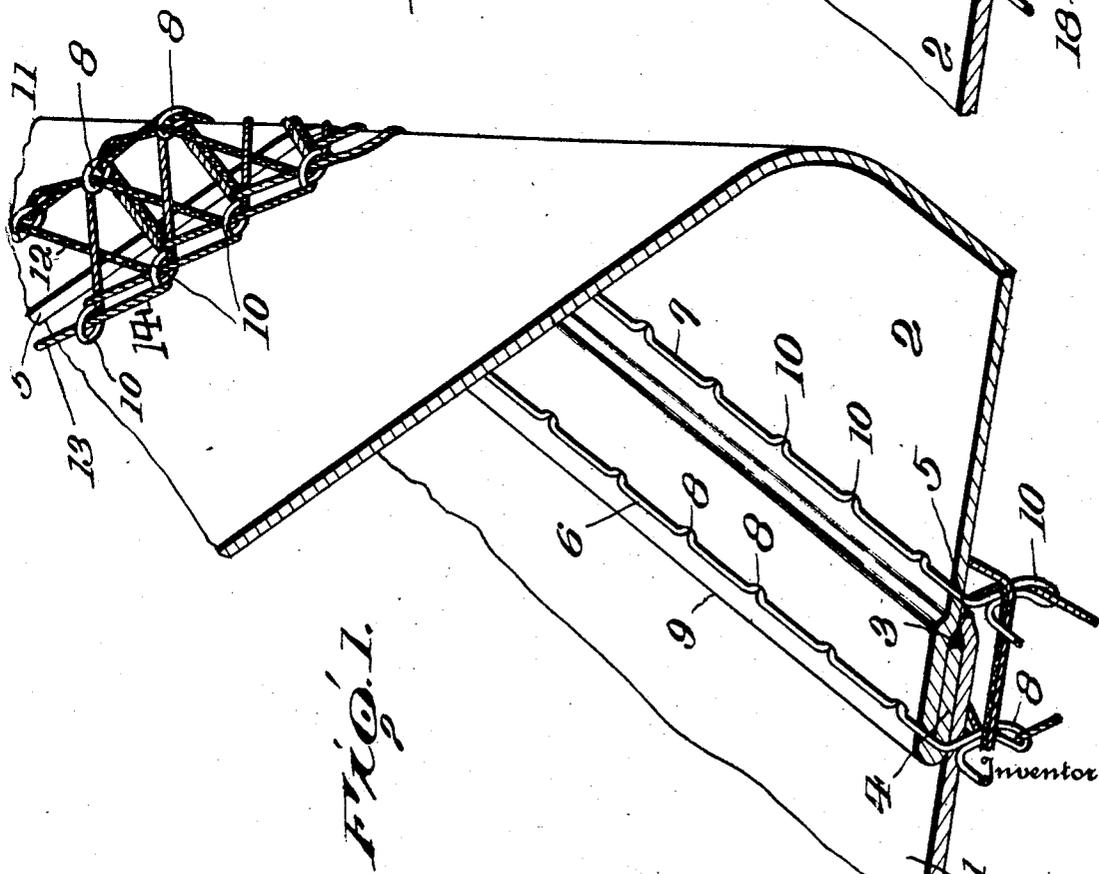
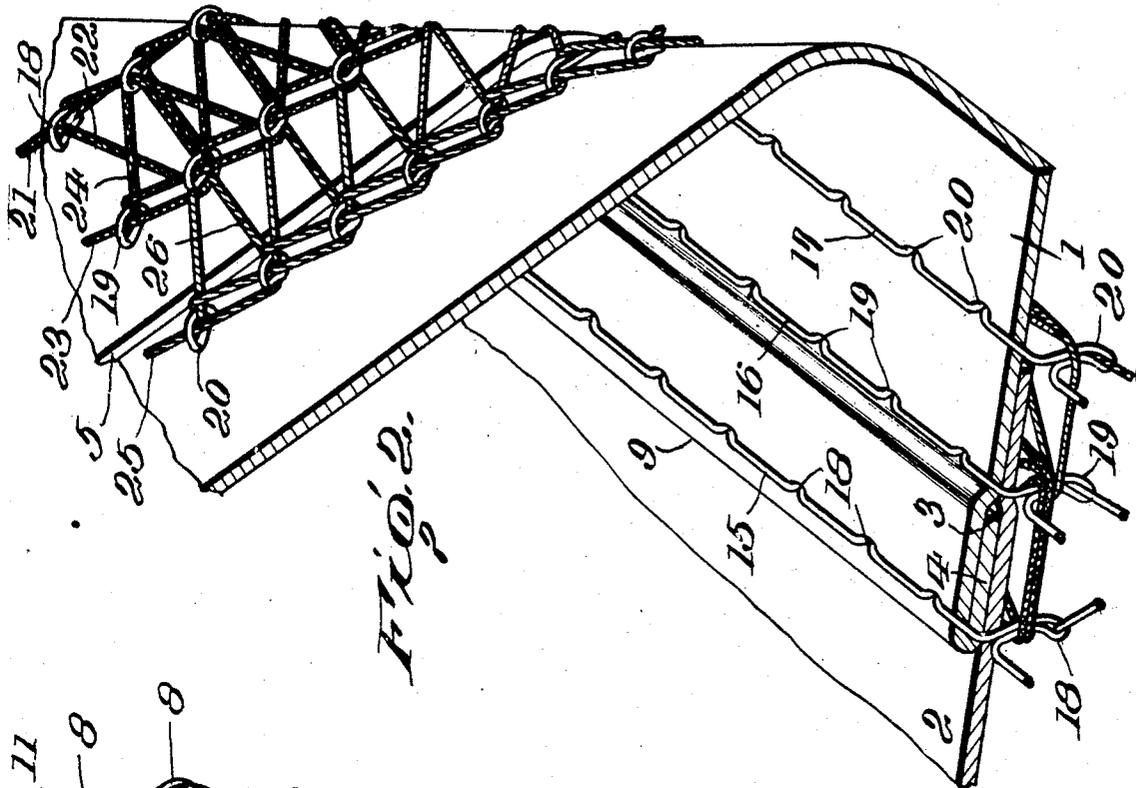
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SEAM FOR SEWED ARTICLES

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## SEAM FOR SEWED ARTICLES

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The invention relates to new and useful improvements in a seam for sewed articles, and more particularly to a flat seam adapted to join knitted fabric sections.

5 An object of the invention is to provide a seam wherein the edge portions of the fabric sections are lapped and the cut edges of the material completely covered with a relatively small quantity of stitching thread.

10 A further object of the invention is to provide a seam of the above type wherein the cut edge of the material is concealed on one face of the fabric by infolding the material, and on the other face of the fabric by the stitching threads.

In the drawings:—

Figure 1 is a view in perspective showing more or less diagrammatically a two needle loop seam embodying the invention wherein a plurality of looper threads are used for locking the needle loops.

20 Fig. 2 is a view similar to Fig. 1 wherein three needles are used for securing the overlapping sections.

25 Fig. 3 is a view similar to Fig. 1 showing two needles for joining the overlapping sections and a single looper thread for securing the needle loops and covering the edge of the material on the under face of the fabric.

30 Fig. 4 is a view similar to Fig. 3 wherein three needles are used for joining the overlapping sections of the fabric.

The invention is directed to a seam for sewing fabrics, and particularly knit goods. The fabric is cut to proper dimensions and the edge portions to be joined are lapped. In order to conceal the cut edge of the fabric on the right or face side of the seam the outer edge portion is folded underneath. The two edge portions thus arranged relative to each other are stitched by a stitching mechanism including at least two needles, one of which passes through the folded portions of the outer lapping fabric section, and the other of which passes through the outer lapping section only and on a line adjacent the cut edge of the under fabric section. The needle loops are secured by one or more looper threads so arranged that they extend from

one line of stitching to the other and thus cover the cut edge of the under fabric section. It is not easy to inturn the lower edge of the fabric section of knit material as the tendency of the cut edge portion is to roll or curl inwardly and away from the outer lapping section.

Referring more in detail to the drawings, the two fabric sections to be united are indicated at 1 and 2. The section 2 is referred to as the outer section as it is the section on the right side or face of the finished seam. This fabric section has a cut edge 3, and the edge portion is folded underneath as indicated at 4. The fabric section 1 has a cut edge indicated at 5. The two fabric sections are arranged flat so as to overlap each other, one section lying flat on the other. The inturned portion 4 terminates short of the cut edge 5 of the under section 1.

As shown in Fig. 1 the fabric sections are united by two needle threads 6 and 7. The needle thread 6 is formed into a series of loops 8, 8 which are passed down through the two fabric sections and through the folded portion of the fabric section adjacent the edge 9 thereof. The needle thread is formed into a series of loops 10, 10 which are passed down through the fabric section 2 only. These loops lie close to the cut edge 5 of the under fabric section 1. As shown in this figure the needle loops 8 are locked by a looper thread 11. The looper thread 11 is formed into a loop 12 which is passed through a loop 8 and then it is expanded and carried across to the other line of stitching so that the next two needle loops 8 and 10 will both pass through this loop 12. The needle loops 10 are locked by a looper thread 13. This looper thread is formed into a loop 14 which is passed through a needle loop 10 and this loop is in turn expanded so that both the needle loops 8 and 10 which pass through the looper thread loop 12 also pass through this looper thread loop 14. Thus it is that the needle loops 8 and 10 are locked and the looper threads extend across the cut edge 5 and effectively cover the same.

In Fig. 2 of the drawings the fabric sections 1 and 2 are provided with an inturned

edge 4 and are arranged as in Fig. 1 except that the cut edge 5 of the fabric section 2 is disposed at a greater distance from the cut edge 3 of the inturned portion 4. The fabric sections thus formed are united by three needle threads 15, 16 and 17. The needle thread 15 is formed into a series of loops 18, 18 which are passed through both fabric sections adjacent the folded edge 9 in the outer fabric section 1. The needle thread 16 is formed into a series of loops 19, 19 which are passed through both fabric sections at one side of but adjacent the cut edge 3 of the inturned section 4. The thread loop 17 is formed into a series of loops 20, 20 which are passed through the fabric section 1 only outside of and adjacent the cut edge 5. The needle loops 18 in the under face of the fabric are locked by a looper thread 21. This looper thread 21 is formed into a loop 22 which is passed through a needle loop 18 and is expanded so that the next two formed needle loops 18 and 19 will pass through said loop 22. The needle loops 19 are locked by a looper thread 23. It is formed into a series of loops 24. These loops are expanded so that the next two formed needle loops 18 and 19 which pass through the looper thread loop 22 will also pass through the looper thread loop 24. The needle loops 20 are locked by a looper loop 25. The looper thread is formed into a series of loops 26, and a loop is passed through a needle thread and is then expanded so that the next two formed needle loops 19 and 20 will pass therethrough. This produces a locking of the needle thread loops on the under face of the fabric which includes threads expanding from one row of needle thread loops to the other and completely covering the cut edge 5 of the fabric section 1.

In Fig. 3 the fabric sections are arranged precisely as shown in Fig. 1, and similar numerals have been applied thereto. The fabric sections are joined by needle threads 6 and 7 formed respectively into a series of loops 8, 8 and 10, 10 as in Fig. 1. In this form of seam the needle thread loops are secured by a single looper thread indicated at 26. Said looper thread is formed into a series of loops 27. One of these loops is passed through a pair of loops 8 and 10 for securing the same. The loop 27 is entered by the next formed needle loop 10 and thus locked. The strand 26<sup>a</sup> of this looper thread loop is carried around the next formed needle thread loop 8 and locked thereby. In this seam the looper thread extends at right angles across the cut edge 5, and said cut edge is covered by the strands of the looper thread loops expanding from one line of needle loops to the other. Thus it is that the edge is completely covered by the stitching threads.

In the form of construction shown in Fig.

4 two fabrics are arranged as in Fig. 2, and similar numerals have been applied thereto. The fabric sections are secured together by three needle threads 15, 16 and 17 which are formed respectively into loops 18, 19 and 20. This arrangement of the needle threads is precisely the same as in Fig. 2. The needle thread loops are however secured by a single looper thread 28. This looper thread 28 is formed into a loop 29 which is passed through all three needle thread loops 18, 19 and 20. It passes first through the loop 20, then 19 and then 18, and the end of the looper thread loop is arranged so that the next formed needle thread loop 18 will pass through the same and lock the looper thread loop. The strand 28<sup>a</sup> is carried laterally so that the next formed needle loops 19 and 20 will pass inside of the strand. Thus it is that the looper thread loop is secured and the strands of the loop spread out so as to better cover the under face and particularly the cut edge 5 of the fabric sections.

From the above it will be apparent that a flat seam has been provided which is especially adapted for uniting knit fabrics and particularly thin knitted fabrics such as rayon silk. On the right face of the material there are needle threads only. There is no covering thread necessary to cover the raw edge as it is in turn concealed between the two looped portions of the fabric section. The raw edge of the under fabric section is secured flat against the outer fabric section and no inturning is necessary. This raw edge is covered by the looper threads. In Fig. 1 of the drawings the seam is formed by two needle threads and two looper threads and in Fig. 3 the seam is formed by two needle threads and one looper thread. In Figs. 3 and 4 a center row of needle thread loops are employed which pass through both fabric sections and thus a very much stronger flat seam is produced. With this center of line of stitching concealed there is no covering thread needed or used as on the outer face the raw edge is concealed by being inturned between the fabric sections.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A seam for sewed articles comprising fabric sections arranged with their edge portions overlapping each other, the outer fabric section having its edge portion inturned so as to conceal the edge thereof between said fabric sections, a series of needle thread loops passing through both fabric sections adjacent the fold in the inturned fabric section, a series of needle thread loops passing through the outer fabric section only adjacent the edge of the inner fabric section, and looper thread loops securing said needle thread loops and extending across from one series of needle thread loops to the other and

covering the edge of the under fabric section.

2. A seam for sewed articles comprising fabric sections arranged with their edge portions overlapping each other, the outer fabric section having its edge portion inturned so as to conceal the edge thereof between said fabric sections, a series of needle thread loops passing through both fabric sections adjacent the fold in the inturned fabric section, a series of needle thread loops passing through the outer fabric section only adjacent the edge of the inner fabric section, a third series of needle thread loops passing through both of said fabric sections midway between the two rows of needle thread loops outside of and adjacent the edge of the inturned portion of the outer fabric section, and looper thread loops securing all of the needle thread loops and extending across from one series of needle thread loops to the other and covering the edge of the under fabric section.

In testimony whereof, I affix my signature.  
NORMAN V. CHRISTENSEN.