

DEPARTMENT OF COMMERCE

BUREAU OF STANDARDS

George K. Burgess, Director

CIRCULAR OF THE BUREAU OF STANDARDS, No. 283

[Issued March 2, 1926]

UNITED STATES GOVERNMENT MASTER SPECIFICATION FOR
STITCHES, SEAMS, AND STITCHING

FEDERAL SPECIFICATIONS BOARD SPECIFICATION No. 384

This specification was officially promulgated by the Federal Specifications Board on March 1, 1926, for the use of the departments and independent establishments of the Government.

[The latest date on which the technical requirements of this specification shall become mandatory for all departments and independent establishments of the Government is June 1, 1926. They may be put into effect, however, at any earlier date after promulgation]

CONTENTS

	Page
I. Purpose.....	2
II. Definition of terms used.....	2
III. Stitches.....	2
1. General considerations.....	2
2. United States standard stitch class 100.....	2
3. United States standard stitch class 200.....	4
4. United States standard stitch class 300.....	4
5. United States standard stitch class 400.....	7
6. United States standard stitch class 500.....	12
7. United States standard stitch class 600.....	15
IV. Seams.....	22
1. Specification of a seam.....	22
2. United States standard seam class SS.....	23
3. United States standard seam class LS.....	28
4. United States standard seam class BS.....	42
5. United States standard seam class FS.....	44
V. Stitching.....	45
1. Specification of stitching.....	45
2. United States standard stitching class OS.....	46
3. United States standard stitching class EF.....	47
VI. Characteristics of seams.....	50
1. Strength.....	50
2. Elasticity.....	50
3. Durability.....	50
4. Security.....	50
5. Appearance.....	50
VII. Guide to use of stitches in seams.....	51

I. PURPOSE

It is the purpose of this specification to specify the formation of the stitches, seams, and stitching used in United States Government work.

II. DEFINITION OF TERMS USED

As a prerequisite to an intelligent analysis of seams and stitching used in the fabrication of garments and sewed articles, a clear understanding of the terms employed is essential:

A stitch is the unit of thread formation in the production of seams and stitching.

A seam consists of a series of stitches joining two or more plies of a material or materials.

Stitching consists of a series of stitches embodied in a material for ornamental purposes or for finishing an edge or for both.

A seam is used for joining or assembling materials in the production of an article, whereas stitching is used for preparing parts for assembling, and includes ornamenting and finishing, such as clocking, crocheting, gimpe stitching, panel stitching, serging, hemming, and similar operations.

III. STITCHES

The stitches in common use are classified and defined and given a symbol for convenience in reference.

1. GENERAL CONSIDERATIONS

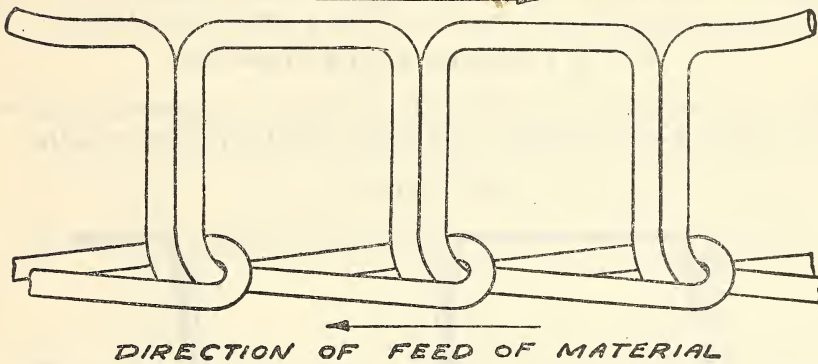
If and when used, the names of instruments or parts of machines are for the sole purpose of describing the stitch and are in no way to restrict the manner or means by which the stitch is formed. It is understood that at the beginning of a stitch the end/ends of the thread or threads is/are anchored in effect at least. In referring to the passage of a thread or the loop of a thread through the material, it shall be understood that such operations are made with uniform spacing between operations unless otherwise specified.

2. U. S. STANDARD STITCH CLASS 100

This class of stitch, formed of one or more threads, has for a general characteristic that all threads pass through the material and that the stitch is secured by concatenations of these threads.

STITCH TYPE 101

DIRECTION OF SUCCESSIVE STITCH FORMATION

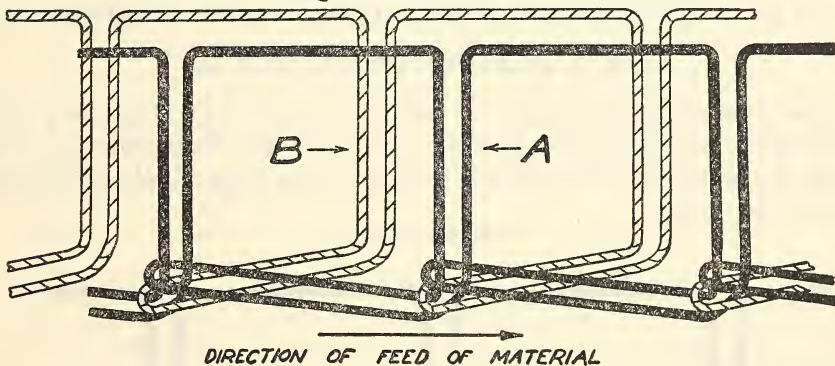


This type of stitch shall be formed of one thread. A loop of this thread shall be passed through the material and through a loop of the same thread extended from the last preceding stitch. It then shall be advanced one stitch length where it will be entered by the next succeeding loop after that loop has been passed through the material.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 102

DIRECTION OF SUCCESSIVE STITCH FORMATION



This type of stitch shall be formed of two threads. Loops of these threads (designated in the drawings as *A* and *B*) shall be passed through the material abreast and the required distance apart laterally, and, in addition, the loop of the *A* thread shall be passed through the loop of the two threads extended from the last preceding stitch. The loop of the *A* thread shall be advanced one stitch length where it shall be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material; the loop of the *B* thread shall be extended diagonally to a point where it also shall

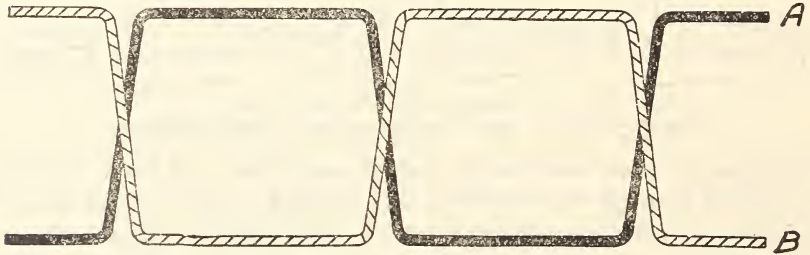
be entered by the same succeeding loop of the *A* thread after that loop has been passed through the material and the loop of the *A* thread.

The above operations are repeated to form a sequence of stitches.

3. U. S. STANDARD STITCH CLASS 200

This class of stitch, formed of two threads, has for a general characteristic that the threads do not interlace, each thread functioning individually.

STITCH TYPE 201



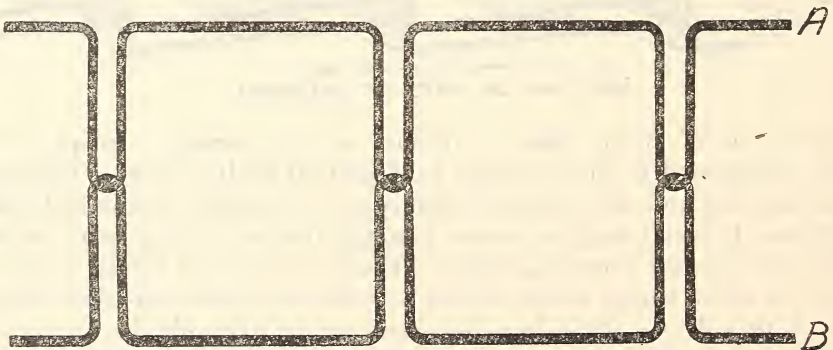
This type of stitch shall be formed of two threads. The body of each thread shall be projected through the same perforation in the material, the threads being projected in opposite directions. The threads then shall be extended to the next succeeding perforation, where they will again be projected through the material in opposite directions.

The above operations are repeated to form a sequence of stitches.

4. U. S. STANDARD STITCH CLASS 300

This class of stitch, formed of two or more threads, has for a general characteristic two groups of threads. Loops of the first group are passed through the material where they are entered by the mass supply of the threads of the second group.

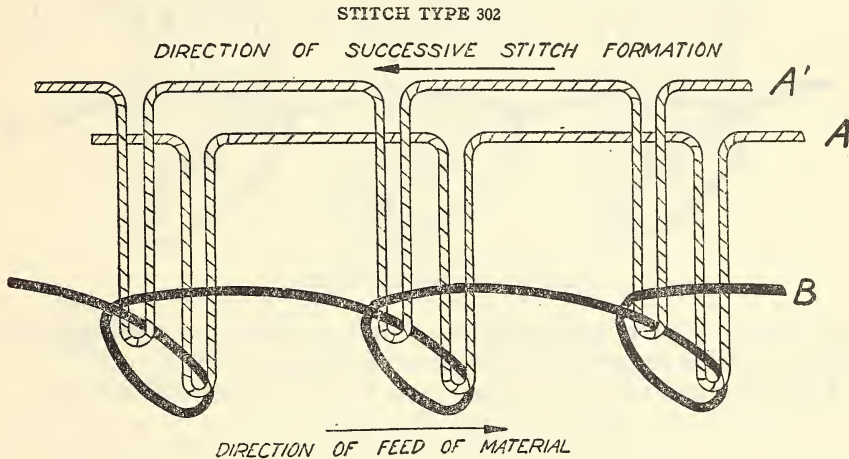
STITCH TYPE 301



This type of stitch shall be formed of two threads. A loop of one thread shall be passed through the material where it shall be entered by the mass supply

of the other thread. The loop of the first thread then shall be drawn into the material to the extent that the concatenation is approximately half way between the two surfaces of the material.

The above operations are repeated to form a sequence of stitches.



This type of stitch shall be formed of three threads. There shall be two threads in the first group and one thread in the second group. In the sketch the threads of the first group are designated as *A* and *A'*; the thread of the second group as *B*.

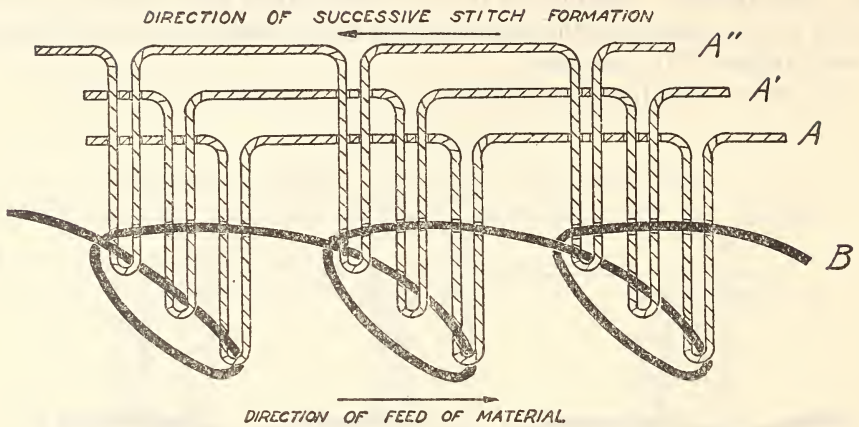
Loops of the threads *A* and *A'* shall be passed through the material abreast and the required distance apart laterally. These loops shall then be entered by the mass supply of the *B* thread which, before entering the succeeding loops of the *A* threads, shall reverse its direction and pass between the material and its own strand, the mass supply of the *B* thread always entering the loops of the *A* threads from the same direction.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 303

This type of stitch shall be formed of four threads. There shall be three threads in the first group and one thread in the second group. In the sketch the threads of the first group are designated as *A*, *A'*, and *A''*; the thread of the second group as *B*.

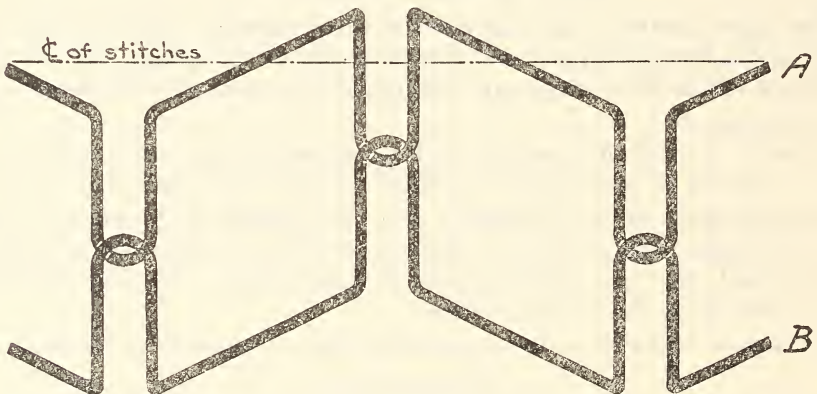
Loops of the threads *A*, *A'* and *A''* shall be passed through the material abreast and the required distance apart laterally. These loops shall then be entered by the mass supply of the *B* thread which, before entering the succeeding loops of the *A* threads, shall reverse its direction and pass between the



material and its own strand, the mass supply of the *B* thread always entering the loops of the *A* threads from the same direction.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 304

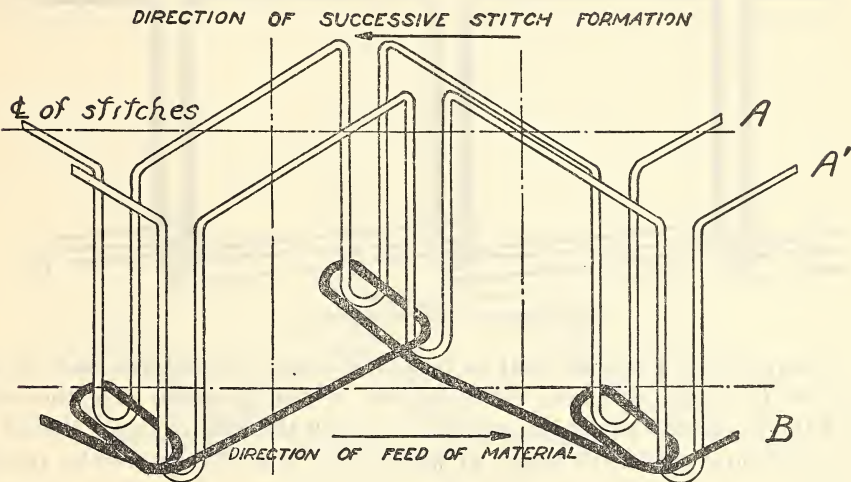


This type of stitch shall be formed of two threads. A loop of one thread shall be passed through the material where it shall be entered by the mass supply of the other thread. The loop of the first thread then shall be drawn into the material to the extent that the concatenation is approximately half way between the two surfaces of the material.

The above operations are repeated to form a sequence of stitches, the stitches being zigzagged across the center line of stitches, each succeeding concatenation lying on the side of the center line opposite the preceding concatenation.

The alternate concatenation instead of lying in the material, may overlie the edge of the material.

STITCH TYPE 305



This type of stitch shall be formed of three threads. There shall be two threads in the first group and one thread in the second group. In the sketch the threads of the first group are designated as *A* and *A'*; the thread of the second group as *B*.

Loops of the threads *A* and *A'* shall be passed through the material abreast and the required distance apart laterally. These loops shall then be entered by the mass supply of the *B* thread. The *B* thread shall then reverse its direction and pass between the material and its own strand, after which it will enter the next succeeding loops of the *A* threads after those loops have been passed through the material, the mass supply of the *B* thread always entering the loops of the *A* threads from the same direction.

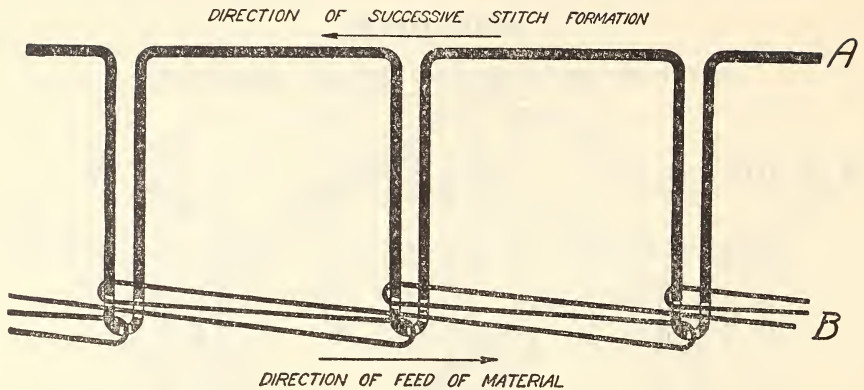
The above operations are repeated to form a sequence of stitches, the stitches being zigzagged across the center line of stitches, succeeding loops of the *A* threads lying on the side of the center line opposite the preceding loops.

5. U. S. STANDARD STITCH CLASS 400

This class of stitch, formed of two or more threads, has for a general characteristic two groups of threads. Loops of the threads of the first group are passed through the material and through loops of the threads of the second group. Succeeding loops of the threads of the second group are then passed through the loops of the first group

STITCH TYPE 401

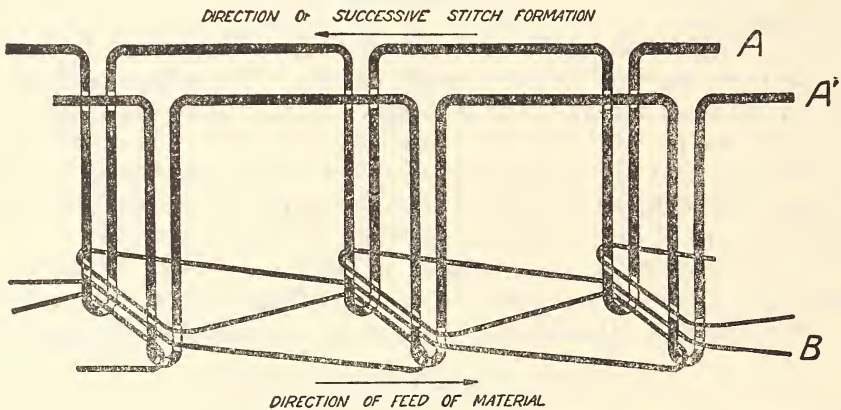
This type of stitch shall be formed of two threads. There shall be one thread in the first group and one thread in the second group. In the sketch the thread of the first group is designated as *A*; the thread of the second group as *B*.



A loop of the *A* thread shall be passed through the material and through a loop of *B* thread extended from the last preceding stitch. The succeeding loop of the *B* thread then shall be passed through the loop of the *A* thread and shall be extended one stitch length at which point it will be entered by the next succeeding loop of the *A* thread after that loop has passed through the material

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 402

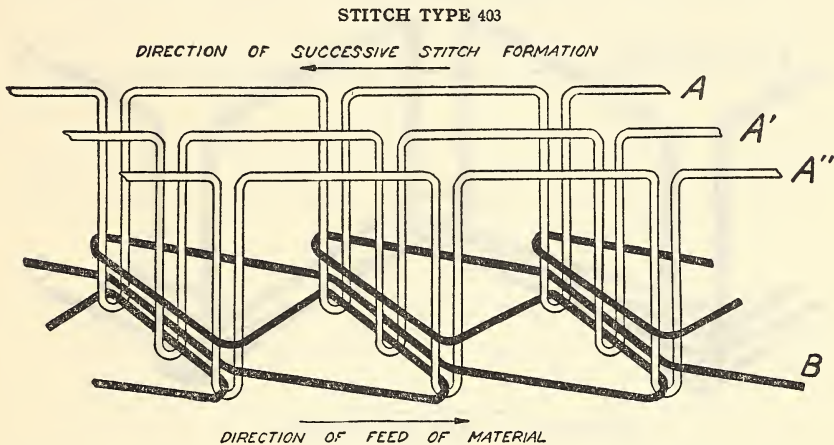


This type of stitch shall be formed of three threads. There shall be two threads in the first group and one thread in the second group. In the sketch the threads of the first group are designated as *A* and *A'*; the thread of the second group as *B*.

Loops of the threads *A* and *A'* shall be passed through the material abreast and the required distance apart laterally and through a loop of the *B* thread extended from the last preceding stitch. The succeeding loop of the *B* thread then shall be passed through the loops of the *A* threads and shall be extended one stitch length at which point it will be entered by the next succeeding loops of the *A* threads after those loops have been passed through the material; the

loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

The above operations are repeated to form a sequence of stitches.



This type of stitch shall be formed of four threads. There shall be three threads in the first group and one thread in the second group. In the sketch the threads of the first group are designated as *A*, *A'*, and *A''*; the thread of the second group as *B*.

Loops of the threads *A*, *A'*, and *A''* shall be passed through the material abreast and the required distance apart laterally and through a loop of the *B* thread extended from the last preceding stitch. The succeeding loop of the *B* thread then shall be passed through the loops of the *A* threads and shall be extended one stitch length, at which point it will be entered by the next succeeding loops of the *A* threads after those loops have been passed through the material; the loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

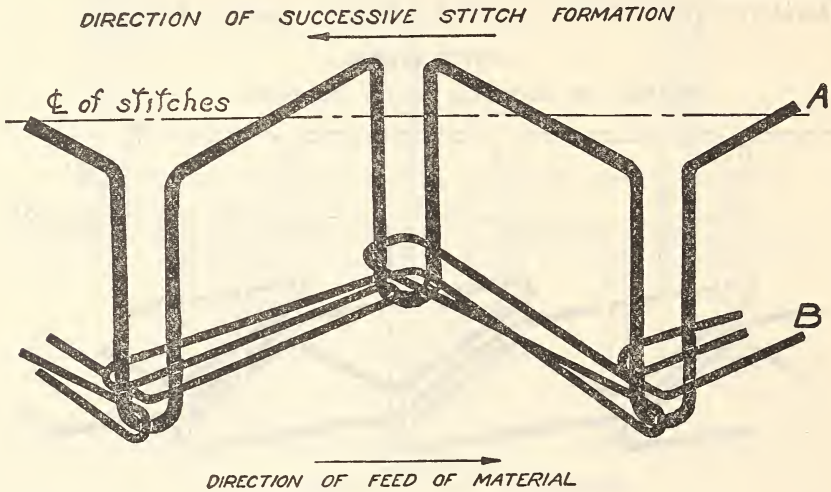
The above operations are repeated to form a sequence of stitches.

STITCH TYPE 404

This type of stitch shall be formed of two threads. There shall be one thread in the first group and one thread in the second group. In the sketch the thread of the first group is designated as *A*; the thread of the second group as *B*.

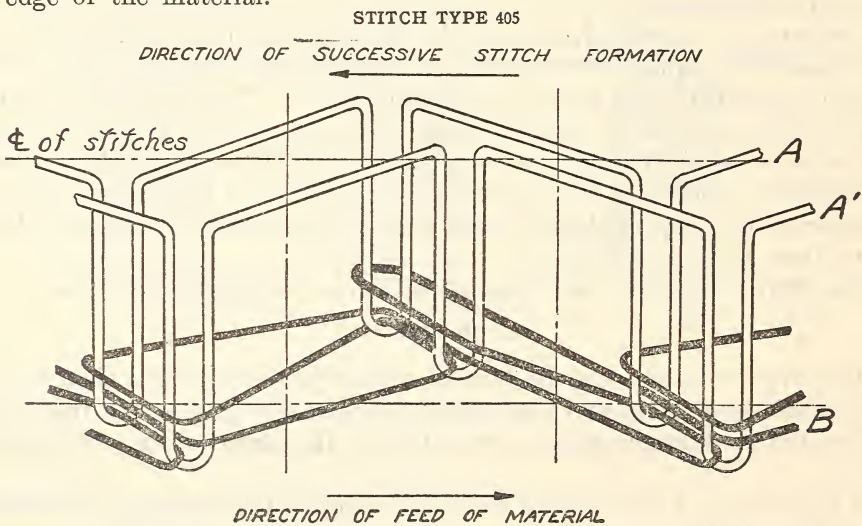
A loop of the *A* thread shall be passed through the material and through a loop of the *B* thread extended from the last preceding stitch. The succeeding loop of the *B* thread then shall be passed through the loop of the *A* thread and shall be extended one stitch length, at which point it will be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material.

The above operations are repeated to form a sequence of stitches, the stitches being zigzagged across the center line of stitches, each succeeding



concatenation lying on the side of the center line opposite the preceding concatenation.

The alternate concatenation, instead of lying in the material, may overlie the edge of the material.

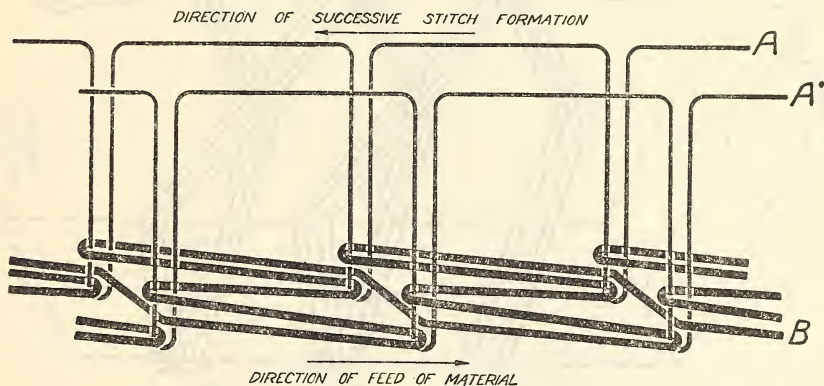


This type of stitch shall be formed of three threads. There shall be two threads in the first group and one thread in the second group. In the sketch the threads of the first group are designated as *A* and *A'*; the thread of the second group as *B*.

Loops of the threads *A* and *A'* shall be passed through the material abreast and the required distance apart laterally and through a loop of the *B* thread extended from the last preceding stitch. The succeeding loop of the *B* thread then shall be passed through the loops of the *A* threads and shall be extended one stitch length, at which point it will be entered by the next succeeding loops of the *A* threads after those loops have been passed through the material; the loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

The above operations are repeated to form a sequence of stitches, the stitches being zigzagged across the center line of stitches, succeeding concatenations lying on the side of the center line opposite the preceding concatenations.

STITCH TYPE 406



This type of stitch shall be formed of three threads. There shall be two threads in the first group and one thread in the second group. In the sketch the threads of the first group are designated as *A* and *A'*; the thread of the second group as *B*.

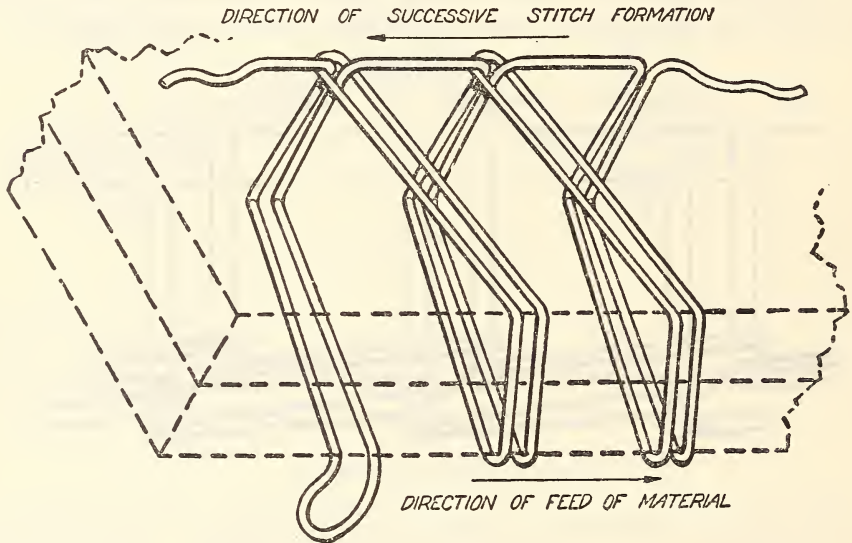
Loops of the threads *A* and *A'* shall be passed through the material abreast and the required distance apart laterally, and each through a loop of the *B* thread extended from the last preceding stitch. The succeeding loop of the *B* thread shall then be passed through the loop of the *A'* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A'* thread after that loop has been passed through the material; this same loop of the *B* thread then shall be passed through the loop of the *A* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material; the loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

These operations are repeated to form a sequence of stitches.

6. U. S. STANDARD STITCH CLASS 500

This class of stitch, formed of one or more threads, has for a general characteristic that, in addition to a loop of one thread being passed through the material, this loop, or a loop of an additional thread, or a sequence of loops of additional threads, passes over the edge of the material, this loop or the last loop of the sequence being entered by the next succeeding through loop before that loop enters the material.

STITCH TYPE 501

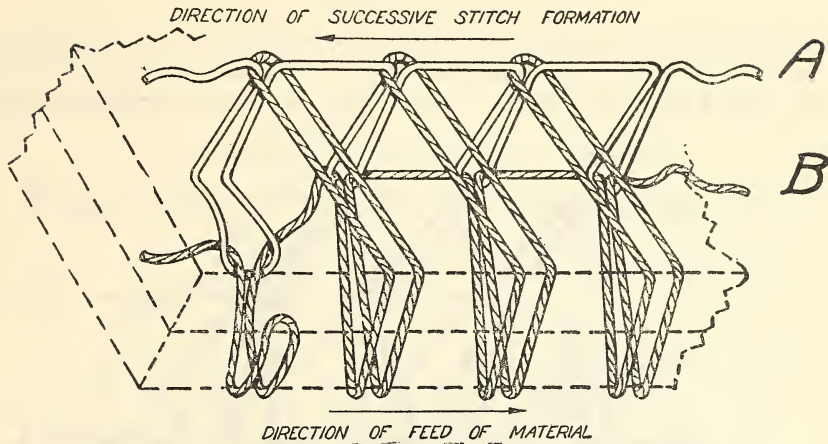


This type of stitch shall be formed of one thread. A loop of the thread shall be passed through the material, extended outwardly around the edge of the material and then carried forward on the side of the material originally entered by the loop, to a point where it will be entered by the next succeeding loop of the thread before that loop is passed through the material.

The above operations are repeated to form a sequence of stitches.

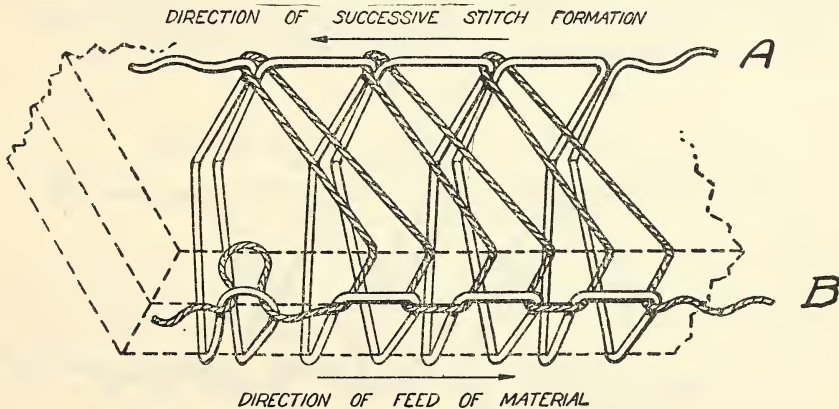
STITCH TYPE 502

This type of stitch shall be formed of two threads. A loop of one thread (designated *A* in the sketch) shall be passed through the material. This loop shall then be entered by a loop of the other thread (designated *B*). The loop of the *B* thread then shall be extended outwardly around the edge of the material and carried forward on the surface of the material, originally entered



by the loop of the *A* thread, to a point where it will be entered by the next succeeding loop of the *A* thread before that loop is passed through the material. The above operations are repeated to form a sequence of stitches.

STITCH TYPE 503



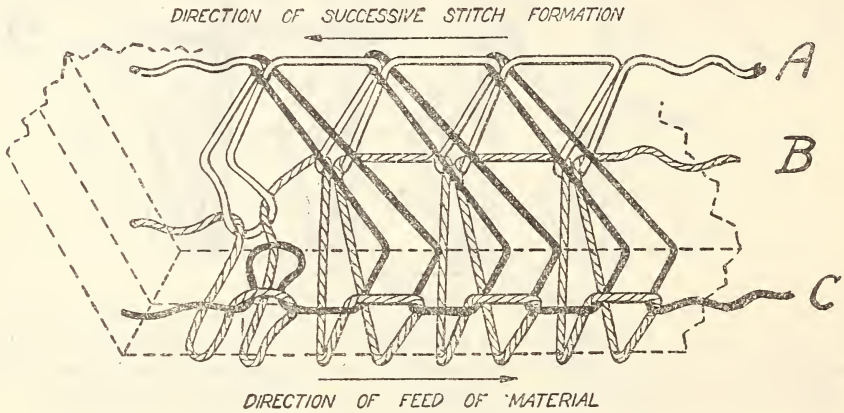
This type of stitch shall be formed of two threads. A loop of one thread (designated *A* in the sketch) shall be passed through the material and extended to the edge of the material where it shall be entered by a loop of the other thread (designated *B*). The loop of the *B* thread then shall be carried forward over the surface of the material, originally entered by the loop of the *A* thread, to a point where it will be entered by the next succeeding loop of the *A* thread before that loop is passed through the material.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 504

This type of stitch shall be formed of three threads. A loop of one thread (designated *A* in the sketch) shall be passed through the material where it shall be entered by a loop of a second thread (designated *B*). This loop of the *B*

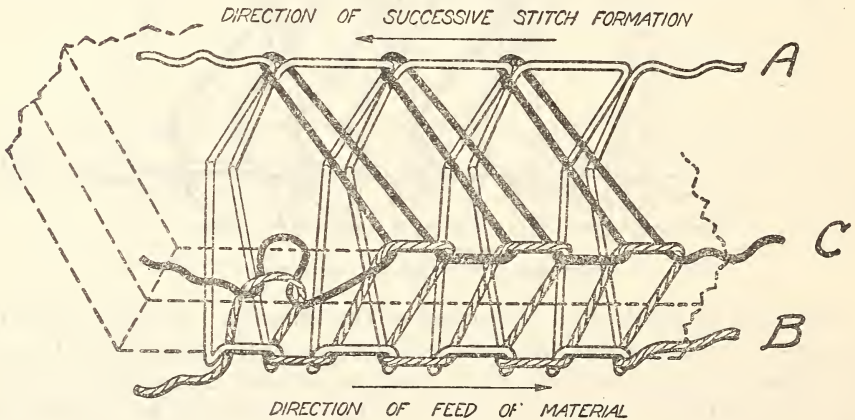
thread shall then be extended to the edge of the material where it shall be entered by a loop of a third thread (designated *C*). This loop of the *C* thread shall then be carried forward over the surface of the material, originally entered by



the loop of the *A* thread, to a point where it will be entered by the next succeeding loop of the *A* thread before that loop is passed through the material.

The above operations are repeated to form a sequence of stitches.

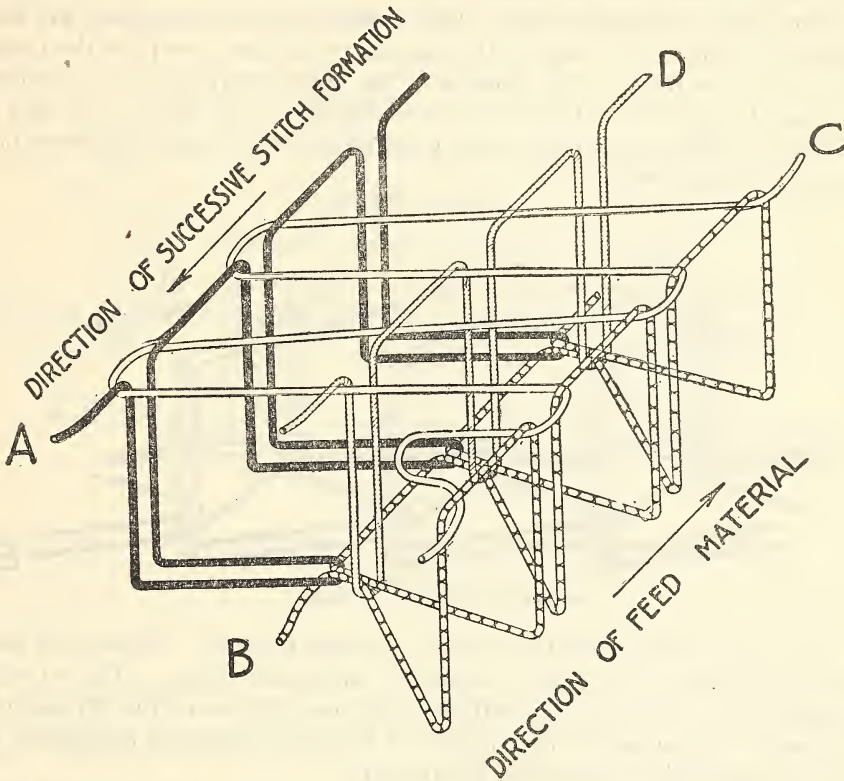
STITCH TYPE 505⁷



This type of stitch shall be formed of three threads. A loop of one thread (designated *A* in the sketch) shall be passed through the material and extended to the edge of the material where it shall be entered by the loop of a second thread (designated *B*). The loop of the *B* thread then shall be entered by a loop of a third thread (designated *C*), which loop shall be carried forward over the surface of the material, originally entered by the loop of the *A* thread, to a point where it will be entered by the next succeeding loop of the *A* thread before that loop is passed through the material.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 506



This type of stitch shall be formed of four threads. Loops of two of the threads (designated *A* and *D* in the sketch) shall be passed through the material abreast and the required distance apart laterally. After passing through the material the loop of thread *A* shall be extended toward the loop of the *D* thread and to a point approximately adjacent thereto where it shall be entered by a loop of a third thread (designated *B*). The loop of the *B* thread then shall enter the loop of the *D* thread and shall extend outwardly and over the edge of the material to a point where it shall be entered by a loop of a fourth thread (designated *C*). The loop of the *C* thread shall then be carried forward over the surface of the material, originally entered by the loops of the threads *A* and *D*, to a point where it will be entered by the succeeding loops of threads *A* and *D* before these loops are passed through the material.

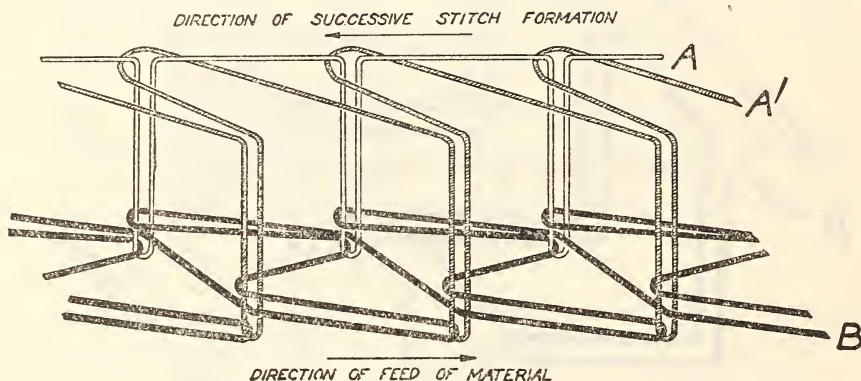
The above operations are repeated to form a sequence of stitches.

7. U. S. STANDARD STITCH CLASS 600

This class of stitch, formed of three or more threads, has for a general characteristic three groups of threads. Loops of the threads of the first group are passed through the material abreast and the required distance apart later-

ally, and each through a loop or loops of the threads of the second group, the body of each thread between its own loops lying over threads of the third group along the surface of the material. The threads of the second group are looped through and around the loops of the threads of the first group on the opposite surface of the material. The threads of the third group lie on the surface of the material entered by the loops of the threads of the first group and pass under the threads of the first group generally between adjacent loops of the threads of the first group.

STITCH TYPE 601



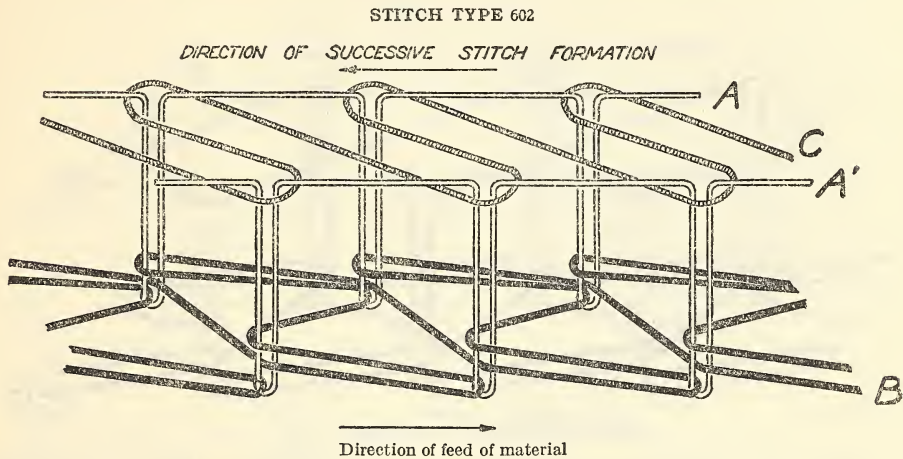
This type of stitch shall be formed of three threads. There shall be two threads in the first group and one thread in the second group. The function of the thread of the third group shall be taken over by one of the threads of the first group. In the sketch the threads of the first group are designated as *A* and *A'*; the thread of the second group as *B*.

Loops of the threads *A* and *A'* shall be passed through the material abreast and the required distance apart laterally, the loop of the *A* thread first passing through a loop of the *A'* thread which shall have been projected across the surface of the material from the last preceding stitch. After passing through the material each loop of the *A* threads shall pass through a loop of the *B* thread extended from the preceding stitch. The loop of the *A'* thread shall then be carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A'* thread after that loop has been passed through the material. This same loop of the *B* thread shall then be passed through the loop of the *A* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material. The loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

Loops of the *A* threads having been projected through the material, the body of the *A'* thread between the loop projected through the material and the next succeeding loop projected through the material, will be extended in

a loop across the surface of the material to a point where this loop will be entered by the next succeeding loop of the *A* thread.

The above operations are repeated to form a sequence of stitches.



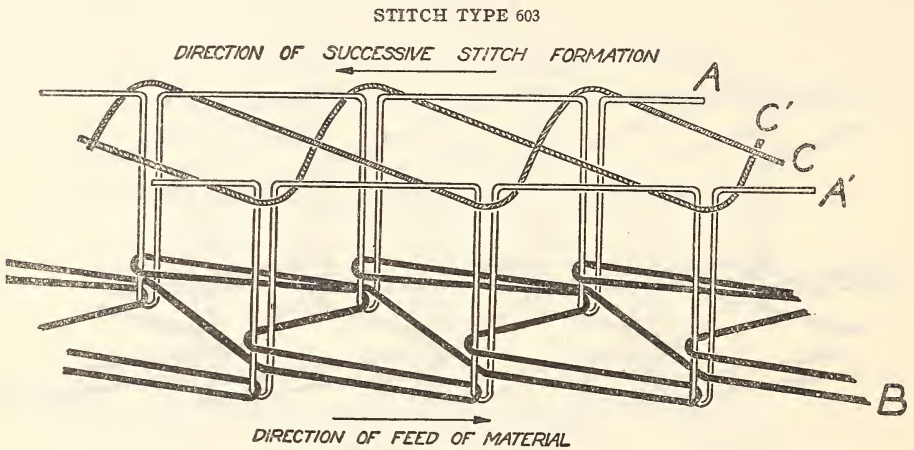
This type of stitch shall be formed of four threads. There shall be two threads in the first group, one thread in the second group, and one thread in the third group. In the sketch the threads of the first group are designated as *A* and *A'*; the thread of the second group as *B*; the thread of the third group as *C*.

Loops of threads *A* and *A'* shall be passed through the material abreast and the required distance apart laterally, the loop of the *A* thread first passing through a loop of the *C* thread which shall have been projected across the surface of the material and under the body of the *A'* thread extended from the last preceding stitch. After passing through the material each loop of the *A* threads shall pass through a loop of the *B* thread extended from the last preceding stitch. The loop of the *A'* thread shall then be entered by a loop of the *B* thread, which loop shall be carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A'* thread after that loop has been passed through the material. This same loop of the *B* thread shall then be passed through the loop of the *A* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material. The loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

Loops of the *A* threads having been projected through the material, the succeeding loop of the *C* thread shall be extended across the surface of the material in such a manner that the next succeeding loop of the *A* thread will enter the loop of the *C* thread while the body of the *A'* thread, after the next

succeeding loop of that thread has been passed through the material, will overlie both legs of the loop of the *C* thread.

The above operations are repeated to form a sequence of stitches.



This type of stitch shall be formed of five threads. There shall be two threads in the first group, one thread in the second group, and two threads in the third group. In the sketch the threads of the first group are designated *A* and *A'*; the thread of the second group as *B*; the threads of the third group as *C* and *C'*.

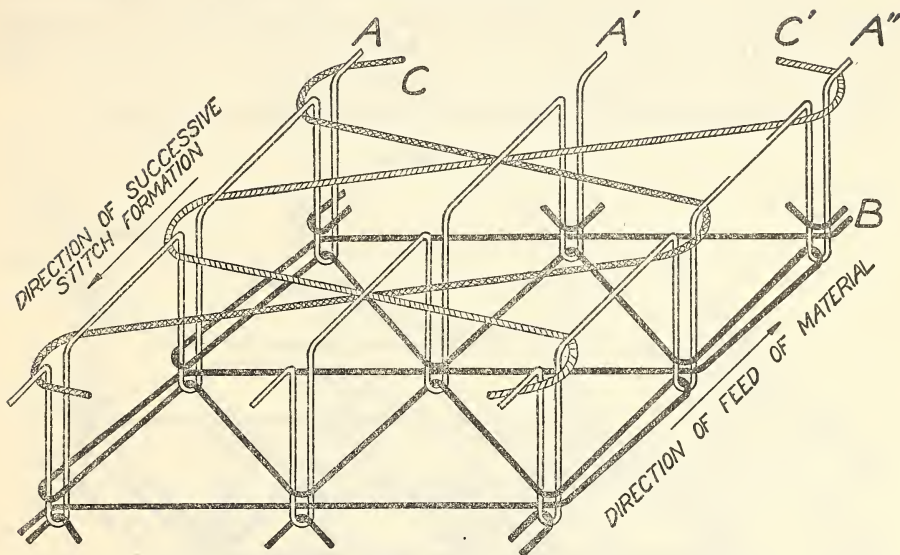
Threads *C* and *C'* shall be laid across the surface of the material in opposite directions and in advance of the through loops of the *A* threads in the last preceding stitch, the body of one *C* thread overlies the body of the other *C* thread. Threads *A* and *A'* shall overlies the two *C* threads, and loops of the threads *A* and *A'* then shall be passed through the material abreast and the required distance apart laterally and each loop through a loop of the *B* thread extended from the last preceding stitch.

The loop of thread *A'* shall be entered by a loop of the *B* thread, which loop shall be carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A'* thread after that loop has been passed through the material. This same loop of the *B* thread then shall be passed through the loop of the *A* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material. The loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

Loops of the *A* threads having been projected through the material, the *C* threads shall be reversed in direction and laid across the surface of the material in advance of the through loop of the *A* threads and in position to be overlaid by the *A* threads in forming the next succeeding stitch.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 604



This type of stitch shall be formed of six threads. There shall be three threads in the first group, one thread in the second group, and two threads in the third group. In the sketch the threads of the first group are designated as *A*, *A'*, and *A''*; the thread of the second group as *B*; the threads of the third group as *C* and *C'*.

Threads *C* and *C'* shall be laid across the surface of the material in opposite directions and in advance of the through loops of the *A* threads in the last preceding stitch, the body of one *C* thread overlying the body of the other *C* thread.

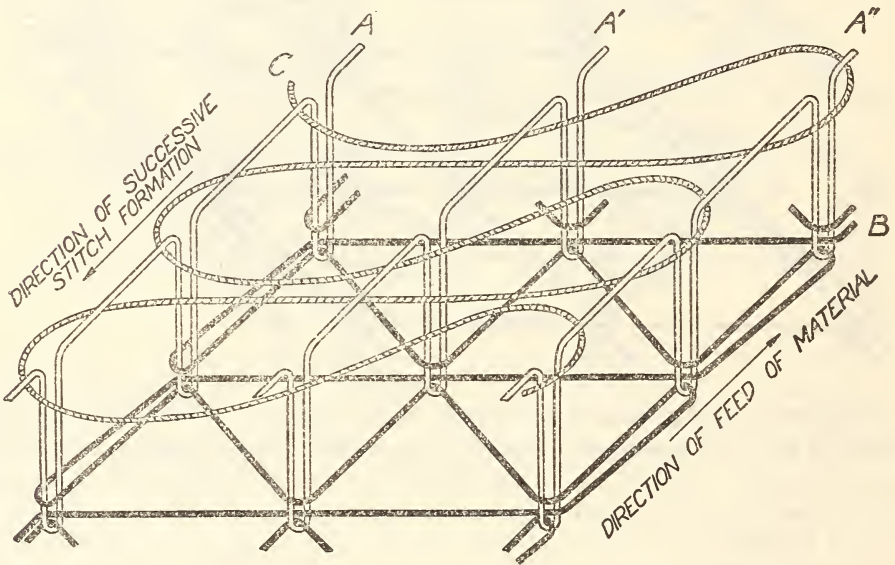
Threads *A*, *A'*, and *A''* shall overlie the two *C* threads, and loops of the threads *A*, *A'*, and *A''* shall be passed through the material abreast and the required distance apart laterally and each loop through a loop of the *B* thread extended from the last preceding stitch.

The loop of the *A''* thread shall be entered by a loop of the *B* thread, which loop shall be carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A''* thread after that loop has been passed through the material. The same loop of the *B* thread then shall be passed through the loop of the *A'* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A'* thread after that loop has been passed through the material. This same loop of the *B* thread then shall be passed through the loop of the *A* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material. The loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

Loops of the *A* threads having been projected through the material, the *C* threads shall be reversed in direction and laid across the surface of the material in advance of the through loops of the *A* threads and in position to be overlaid by the *A* threads in forming the next succeeding stitch.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 605



This type of stitch shall be formed of five threads. There shall be three threads in the first group, one thread in the second group, and one thread in the third group. In the sketch the threads of the first group are designated as *A*, *A'*, and *A''*; the thread of the second group as *B*; the thread of the third group as *C*.

Loops of the threads *A*, *A'*, and *A''* shall be passed through the material abreast and the required distance apart laterally, the loops of threads *A* and *A'* first passing through a loop of the *C* thread which shall have been projected across the surface of the material and under the body of the *A''* thread extended from the last preceding stitch. After passing through the material each loop of the *A* threads shall pass through a loop of the *B* thread extended from the last preceding stitch.

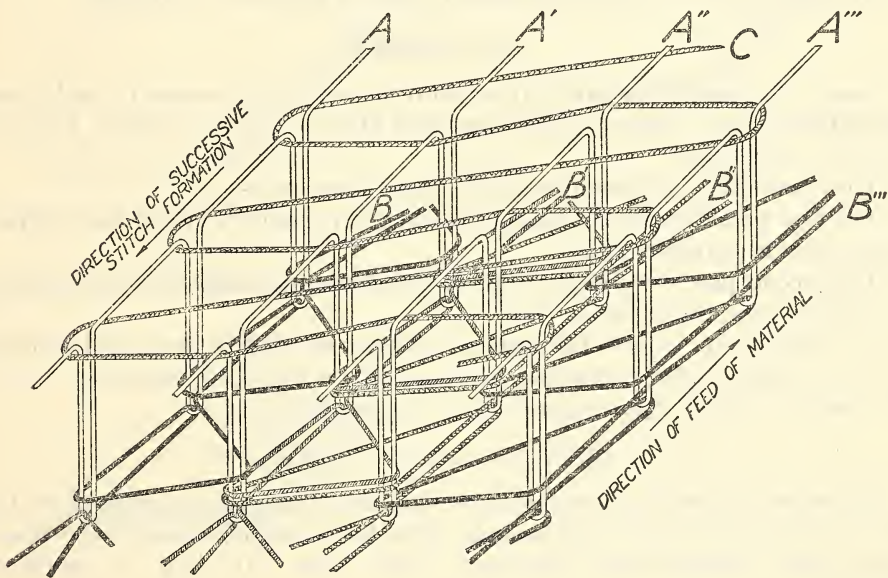
The loop of the *A''* thread shall be entered by a loop of the *B* thread, which loop shall be carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A''* thread after that loop has been passed through the material. This same loop of the *B* thread then shall be passed through the loop of the *A'* thread and carried forward one stitch length, at which point it will be entered by the next succeeding loop of the *A'* thread after that loop has been passed through the material. This same loop of the *B* thread then shall be passed through the loop of the *A* thread and carried

forward one stitch length, at which point it will be entered by the next succeeding loop of the *A* thread after that loop has been passed through the material. The loop of the *B* thread shall always enter the loops of the *A* threads from the same direction.

Loops of the *A* threads having been projected through the material, the next succeeding loop of the *C* thread will be extended across the surface of the material in such a manner that the next succeeding loops of the *A* and *A'* threads will enter the loop of the *C* thread while the body of the *A''* thread, after the next succeeding loop of that thread has been passed through the material, will overlie both legs of the loop of the *C* thread.

The above operations are repeated to form a sequence of stitches.

STITCH TYPE 606



This type of stitch shall be formed of nine threads. There shall be four threads in the first group, four threads in the second group, and one thread in the third group. In the sketch the threads of the first group are designated as *A*, *A'*, *A''*, and *A'''*; the threads of the second group as *B*, *B'*, *B''*, and *B'''*; the thread of the third group as *C*.

Loops of the *A* threads shall be passed through the material abreast and the required distance apart laterally, the loops of the *A* and *A'* threads first passing through a loop of the *C* thread which shall have been projected across the surface of the material and under the body of the *A''* and *A'''* threads extended from the last preceding stitch. After passing through the material each loop of the *A* threads shall pass through a loop or loops of one or more *B* threads extended from the last preceding stitch. Loops of the *B* and *B'* threads shall then enter the loops of the *A* and *A'* threads, respectively, and

shall be carried forward one stitch length to a point where they will be entered by the next succeeding loops of the *A* and *A'* threads and of the *A'* and *A''* threads, respectively. Loops of the *B'''* and *B''* threads shall enter the loops of the *A'''* and *A''* threads, respectively, and shall be carried forward one stitch length to a point where they will be entered by the next succeeding loops of the *A'''* and *A''* threads and of the *A''* and *A'* threads, respectively.

The loops of the *A* threads having been projected through the material, the next succeeding loop of the *C* thread will be extended across the surface of the material in such a manner that the next succeeding loops of the *A* and *A'* threads will enter the loop of the *C* thread while the bodies of the *A''* and *A'''* threads, after the next succeeding loop of these threads have been passed through the material, will overlie both legs of the loop of the *C* thread.

The above operations are repeated to form a sequence of stitches.

IV. SEAMS

Seams in general use are divided into classes. The seams in each class are subdivided into types. Each class and type is given a symbol for convenience in reference.

The symbol for each seam is divided into three parts:

The first part denotes the class of seam, and consists of two or more upper-case letters, for example, "SS."

The second part denotes the type of the class, and consists of one or more lower-case letters, for example, "a."

The third part denotes the number of rows of stitches used, and consists of one or more Arabic numerals preceded by a dash, for example, "-1." The complete symbol thus becomes, for example, "SSa-1."

1. SPECIFICATION OF A SEAM

The specification of a seam shall include the seam symbol prefixed by the symbol of the stitch to be used therein; thus, for example, a seam type SSa-1 formed with United States standard stitch type 101 shall be specified: "101-SSa-1."

In seams where more than one type of stitch is used, the symbol of the type of stitch nearest the edge of the material shall be placed first in the specification. Thus, a seam type SSa-2 formed with one row of stitch type 505 and one row of stitch type 101 shall be specified: "505-101-SSa-1."

Likewise, in the case of the specification of a two-operation seam, the symbol of the stitch used in the first operation shall be placed first in the specification. Thus, seam type SSe-2 made by joining two plies together with stitch type 401 and then turning and stitching down with stitch type 301 shall be specified: "401-301-SSe-2." Where the same type of stitch is used for both operations, the symbol of the stitch type shall not be repeated in the specification.

2. U. S. STANDARD SEAM CLASS SS

This class of seam has for a general characteristic that the plies of material are superposed and joined with one or more rows of stitches. Following are seam construction drawings of a number of typical examples of seams falling under class SS.

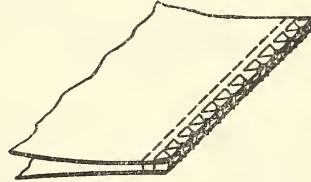
TYPE SSa-1

Produced with stitch types 304 or 404.



TYPE SSa-2

Produced with a combination of stitch types 101, 201, 301, or 401 and

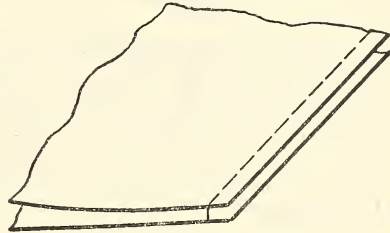
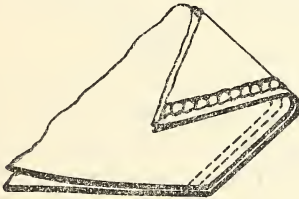


any type of stitch class 500 or class 600.

SEAM TYPE SSa-1

TYPE SSa-1

Produced with stitch types 302 or 402.

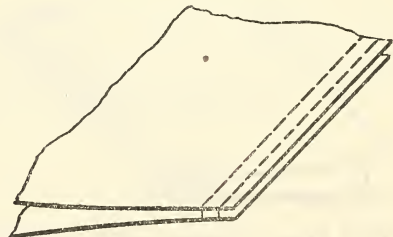
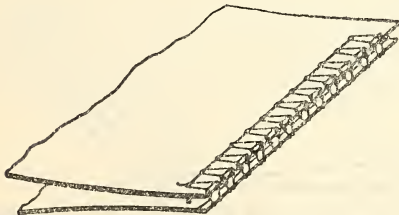


This type of seam shall be formed by superposing two or more plies of material and uniting them with one row of stitches, as shown by the seam construction drawing of a typical example.

TYPE SSa-1

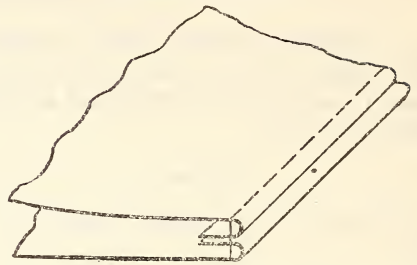
Produced with stitch class 500.

SEAM TYPE SSa-2



This type of seam shall be formed by superposing two or more plies of material and uniting them with two rows of stitches, as shown by the seam construction drawing of a typical example.

SEAM TYPE SSc-1



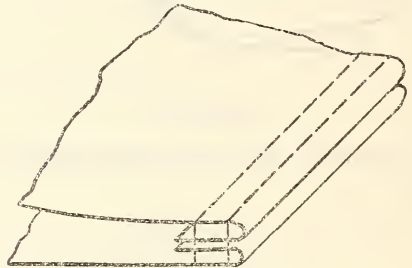
This type of seam shall be formed by turning the edge of both plies of the material to the inside and uniting with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE SSb-1



This type of seam shall be formed by turning the edge of one ply of the material and uniting the plies with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE SSc-2



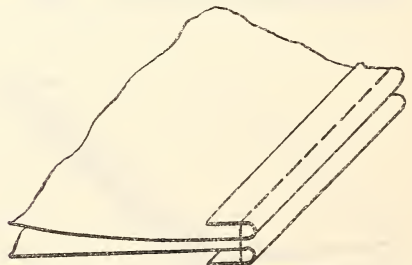
This type of seam shall be formed by turning the edge of both plies of the material to the inside and uniting with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE SSb-2



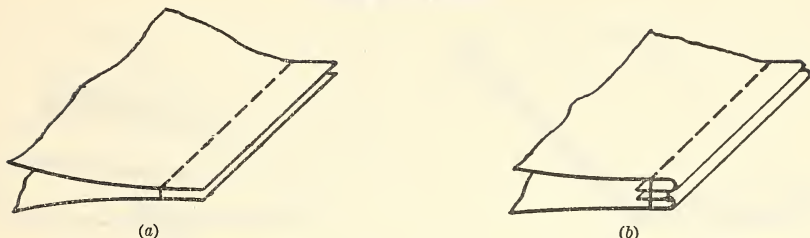
This type of seam shall be formed by turning the edge of one ply of the material and uniting with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE SSd-1



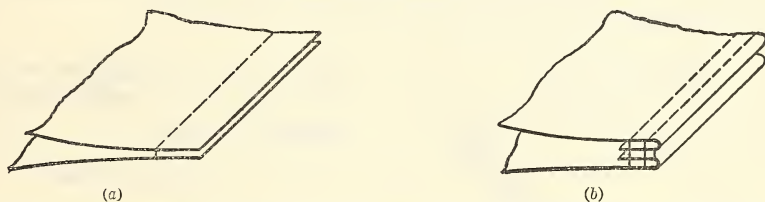
This type of seam shall be formed by turning the edge of both plies of the material outwardly and uniting with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE SSa-2



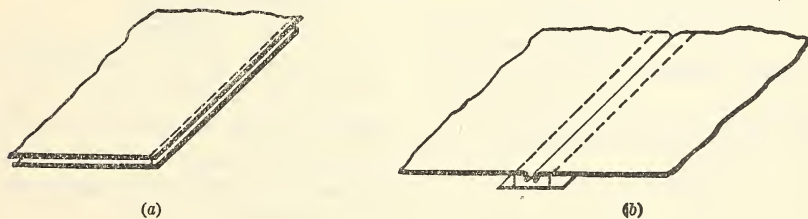
In forming this type of seam the plies of the material first shall be superposed and seamed as in forming seam type SSa-1 (a). The plies of the material shall then be turned and joined with one row of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE SSa-3



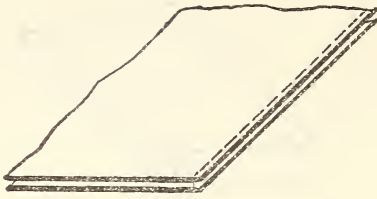
In forming this type of seam the plies of the material first shall be superposed and joined as in forming seam type SSa-1 (a). The plies of material shall then be turned and joined with two rows of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE SSf-3

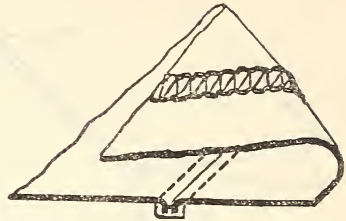


In forming this type of seam the plies of the material first shall be superposed and seamed as in forming seam type SSa-1 (a). The plies of the material shall then be opened and a reinforcing tape attached with two rows of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE SSb-2



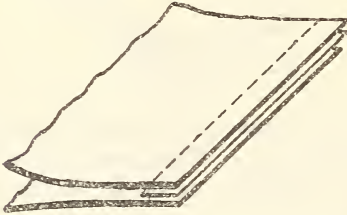
(a)



(b)

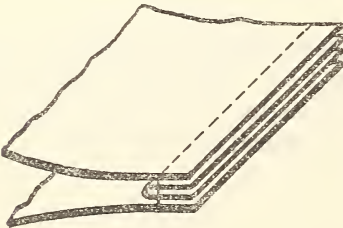
In forming this type of seam the plies of material first shall be superposed and seamed as in forming seam type SSa-1 (a). The edges of the material shall be trimmed to insure a constant margin. The plies of material shall then be opened up and the edges covered with a row of stitches type 406, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE SSj-1



This type of seam shall be formed by superposing two or more plies of material and inserting a plain, narrow strip of material between the plies and joining with one row of stitches, as shown in the seam construction drawing of a typical example.

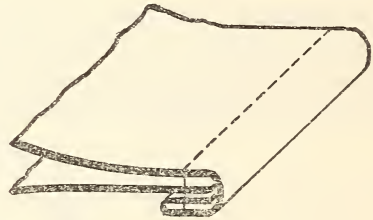
SEAM TYPE SSk-1



This type of seam shall be formed by superposing two or more plies of material, inserting a folded strip of material between the plies, and joining

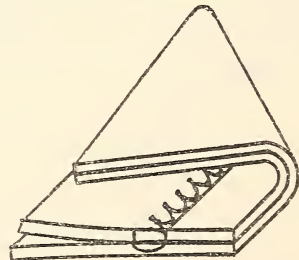
with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE SSl-1



This type of seam shall be formed by turning the edge of one ply of the material over the edge, as shown in the seam construction drawing of a typical example, and joining with one row of stitches.

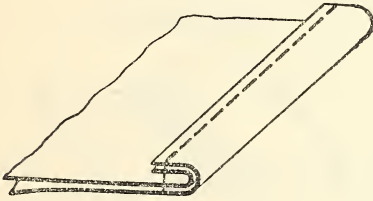
SEAM TYPE SSm-1



This type of seam shall be formed by superposing two or more plies of material and uniting with one row of stitches in such a manner that the thread passes only partially through the last or outer ply. The thread shall not show on the outer side of the last ply which is the outer or right side of the article seamed.

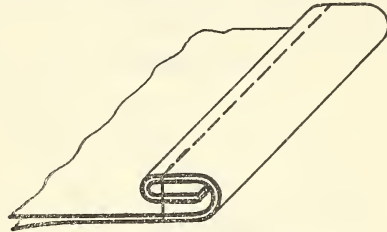
material, turning the edges, as shown in the seam construction drawing of a typical example, and joining with one row of stitches.

SEAM TYPE SSa-1



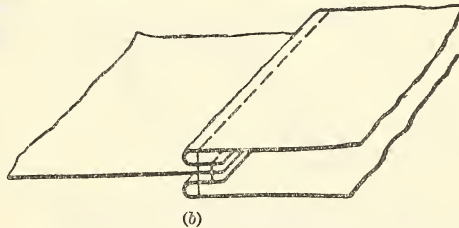
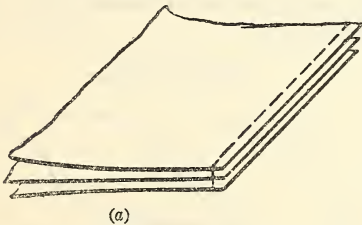
This type of seam shall be formed by superposing two or more plies of

SEAM TYPE SSp-1



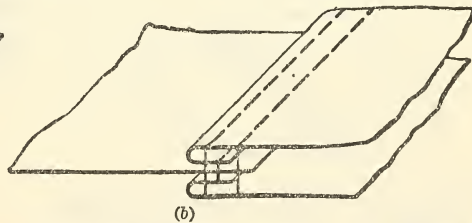
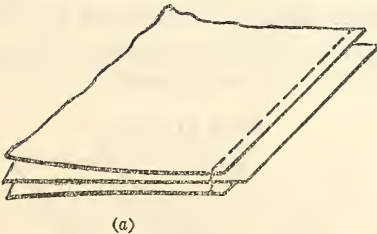
This type of seam shall be formed by superposing two or more plies of material, turning the edges, as shown in the seam construction drawing of a typical example, and joining with one row of stitches.

SEAM TYPE SSq-2



This type of seam shall be formed by first superposing and uniting three or more plies of material as in forming seam type SSa-1 (a). The two outer plies shall then be turned and all plies joined with one row of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE SSq-3



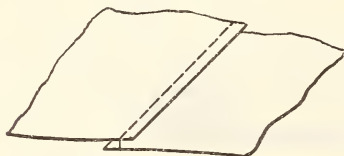
This type of seam shall be formed by first superposing and uniting three or more plies of material as in forming seam type SSa-1 (a). The two outer

plies shall then be turned and all plies joined with two rows of stitches, as shown in the seam construction drawing of a typical example (b).

3. U. S. STANDARD SEAM CLASS LS

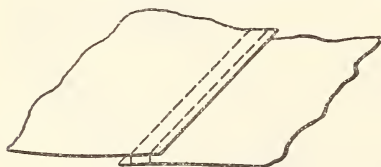
This class of seam has for a general characteristic that the plies of material are overlapped a sufficient distance to hold the stitches and joined with one or more rows of stitches.

SEAM TYPE LSa-1



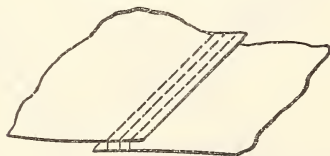
This type of seam shall be formed by overlapping two or more plies of material and uniting them with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSa-2



This type of seam shall be formed by overlapping two or more plies of material and uniting them with two rows of stitches, as shown in the seam construction drawing of a typical example.

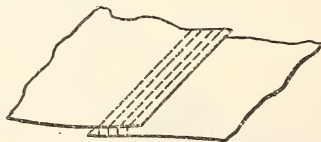
SEAM TYPE LSa-3



This type of seam shall be formed by overlapping two or more plies of material and uniting them with three

rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSa-4



This type of seam shall be formed by overlapping two or more plies of material and uniting them with four rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSb-1



This type of seam shall be formed by turning the edge of one ply of the material and lapping it over another ply and uniting them with one row of stitches, which also shall secure the turned-under portion of the one ply. The edge of the material on the outer surface shall be concealed.

SEAM TYPE LSb-2



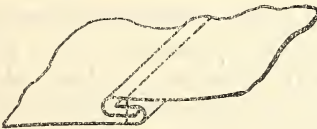
This type of seam shall be formed by turning the edge of one ply of the material and lapping it over another ply and uniting them with two rows of stitches, which also shall secure the turned-under portion of the one ply. The edge of the material on the outer surface shall be concealed.

SEAM TYPE LSb-3



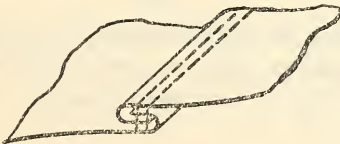
This type of seam shall be formed by turning the edge of one ply of the material and lapping it over another ply and uniting them with three rows of stitches, which also shall secure the turned-under portion of the one ply. The edge of the material on the outer surface shall be concealed.

SEAM TYPE LSc-1



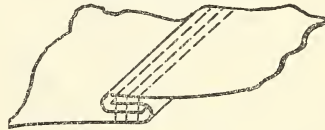
This type of seam shall be formed by turning the edges of both plies of the material and lapping them, as shown in the seam construction drawing of a typical example, and uniting them with one row of stitches, which also shall secure the turned portions. The edges of the material shall be concealed.

SEAM TYPE LSc-2



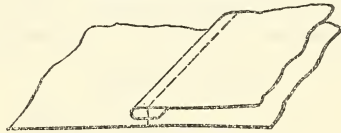
This type of seam shall be formed by turning the edges of both plies of the material and lapping them, as shown in the seam construction drawing of a typical example, and uniting them with two rows of stitches, which also shall secure the turned portions. The edges of the material shall be concealed.

SEAM TYPE LSc-3



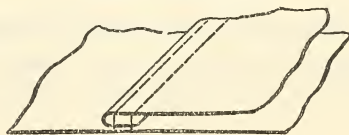
This type of seam shall be formed by turning the edges of both plies of the material and lapping them, as shown in the seam construction drawing of a typical example, and uniting them with three rows of stitches, which also shall secure the turned portions. The edges of the material shall be concealed.

SEAM TYPE LSc-1



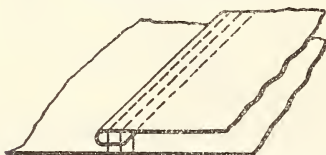
This type of seam shall be formed by turning the edge of one ply of the material, lapping it on another ply of material a substantial distance from the edge, as shown in the seam construction drawing of a typical example, and joining the plies with one row of stitches, which also shall secure the turned portion. The edge of the outer ply shall be concealed.

SEAM TYPE LSc-2



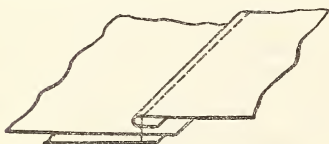
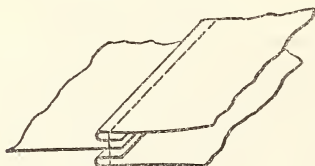
This type of seam shall be formed by turning the edge of one ply of the material, lapping it on another ply of material a substantial distance from the edge, as shown in the seam construction drawing of a typical example, and joining the plies with two rows of stitches, which also shall secure the turned portion. The edge of the outer ply shall be concealed.

SEAM TYPE LSd-3



This type of seam shall be formed by turning the edge of one ply of the material, lapping it on another ply of material a substantial distance from the edge, as shown in the seam construction drawing of a typical example, and joining the plies with three rows of stitches, which also shall secure the turned portion. The edge of the outer ply shall be concealed.

SEAM TYPE LSe-1

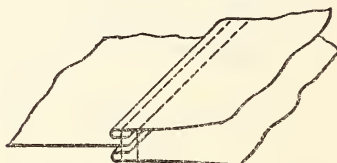


(a)

This type of seam shall be formed by turning the edge of one ply of material, lapping it on two or more other plies, and joining with one row of stitches, as shown in (a) of the seam construction drawing of a typical example. The

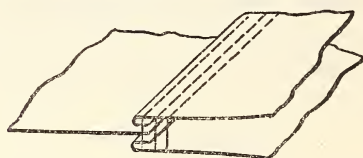
This type of seam shall be formed by turning the edges of two plies of material, inserting a third ply, and uniting all with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSe-2



This type of seam shall be formed by turning the edges of two plies of material, inserting a third ply, and uniting all with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSe-3



This type of seam shall be formed by turning the edges of two plies of material, inserting a third ply, and uniting all with three rows of stitches, as shown in the seam construction drawing of a typical example.

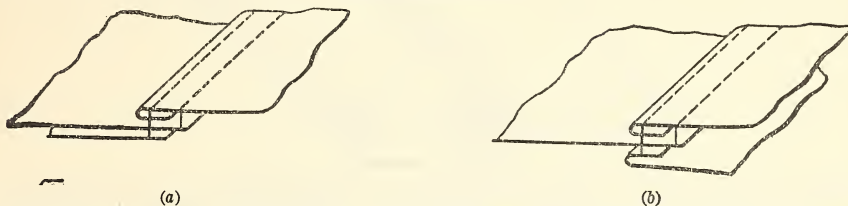
SEAM TYPE LSf-1



(b)

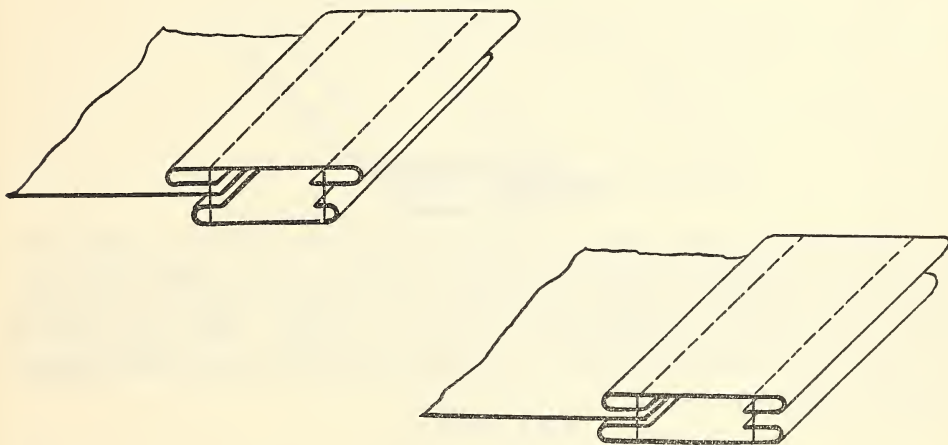
under or inner ply shall be turned back, as shown in (b), the under ply registering with the uppermost ply.

SEAM TYPE LSt-2



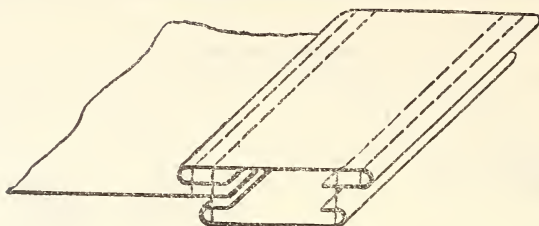
This type of seam shall be formed by turning the edge of one ply of material, lapping it on two or more other plies, and joining with two rows of stitches, as shown in (a) of the seam construction drawing of a typical example. The under or inner ply shall be turned back, as shown in (b), the under ply registering with the uppermost ply. The second row of stitches need not pass through the turned portion of the uppermost ply.

SEAM TYPE LSg-2



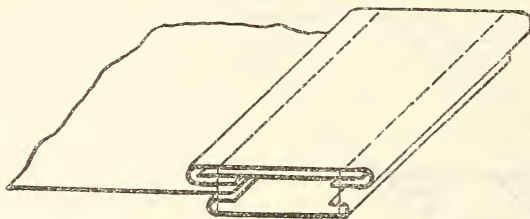
This type of seam shall be formed by turning the edges of two plies of material, inserting a third ply of material between them, and uniting the three plies and turned portions with one row of stitches, similar to seam type LSe-1. The other edges of the strips shall be turned and joined with one row of stitches similar to seam type SSc-1, forming a completed seam, as shown in the seam construction drawings of two typical examples.

SEAM TYPE LSg-4



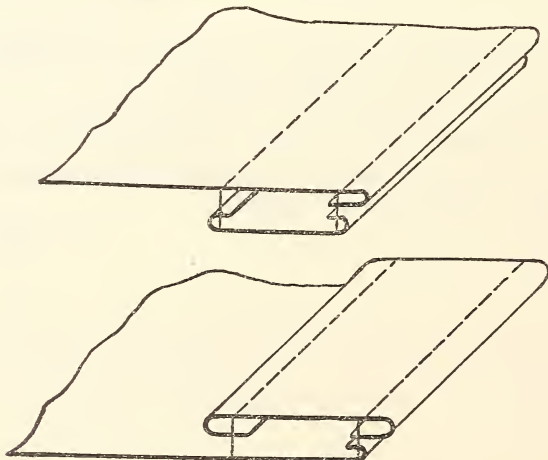
This type of seam shall be formed by turning the edges of two plies of material, inserting a third ply between them, and uniting the three plies and turned portions with one row of stitches and the upper ply and turned portion with the third ply with one row of stitches. The other edges of the strips shall be turned and joined with one row of stitches and the upper ply and its turned portion with still another row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSj-2



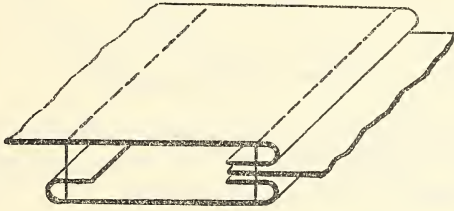
This type of seam shall be formed, as shown in the seam construction drawing of a typical example, by turning the edges of the upper ply over a second ply, turning the edge of the under ply, inserting a fourth ply between these turned edges, and joining with one row of stitches. The other edges of the upper and under plies shall be turned and joined with one row of stitches similar to seam type SSc-1.

SEAM TYPE LSk-2



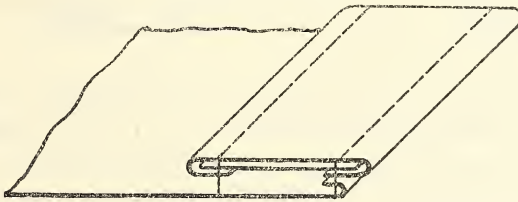
This type of seam shall be formed by turning the edges of a strip, turning the edge of the body material, and uniting with two rows of stitches, as shown in the seam construction drawings of two typical examples.

SEAM TYPE LSI-2



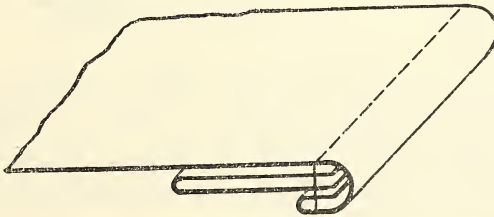
This type of seam shall be formed by turning the edges of a strip, turning the edge of the body material, and inserting one or more plies of material between the inturned edge of the body material and the inturned edge of the strip, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSm-2

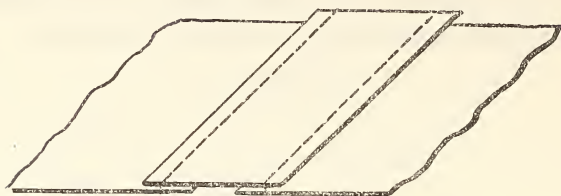


This type of seam shall be formed, as shown in the seam construction drawing of a typical example, by turning the edges of the upper ply over a second ply, turning the edge of the body material, and uniting the plies to the body material with two rows of stitches.

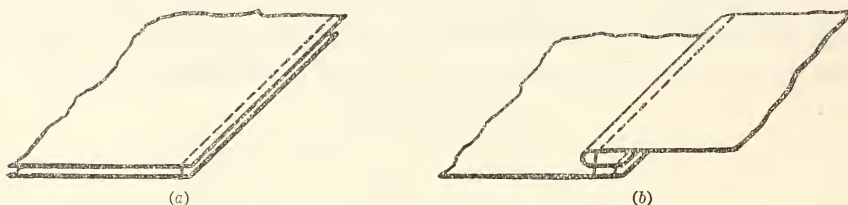
SEAM TYPE LSn-1



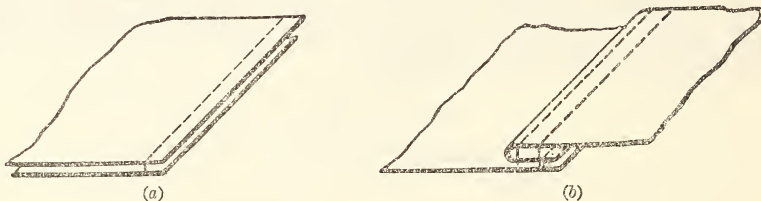
This type of seam shall be formed by turning the edge of the body material as for a hem, and inserting a folded strip between the turned portion and the body material, as shown in the seam construction drawing of a typical example, and uniting with one row of stitches.

SEAM TYPE LS_p-2

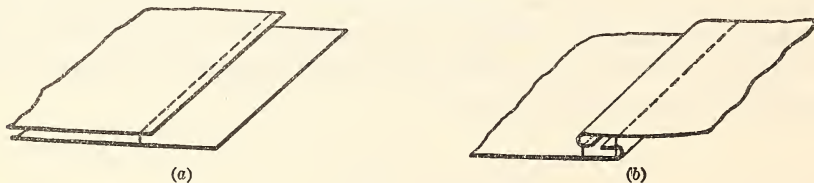
This type of seam shall be formed by laying a strip over the edges of two or more pieces of material and uniting with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LS_q-2

In forming this type of seam the plies of material first shall be superposed and joined, as in forming seam type SSa-1 (a). One ply shall then be turned back and stitched down with one row of stitches, as shown in the seam construction drawing of a typical example of a completed seam (b).

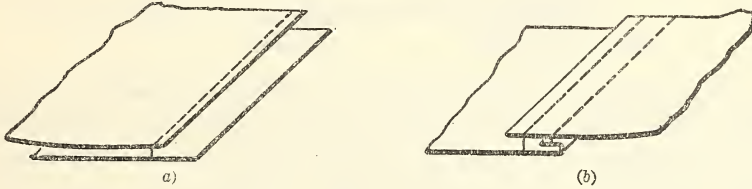
SEAM TYPE LS_q-3

In forming this type of seam the plies of material first shall be superposed and joined, as in forming seam type SSa-1 (a). One ply shall then be turned back and stitched down with two rows of stitches, as shown in the seam construction drawing of a typical example of a completed seam (b).

SEAM TYPE LS_r-2

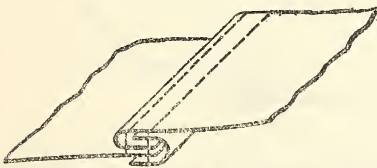
In forming this type of seam the plies of material first shall be joined, as shown in (a). The one ply then shall be turned back, the edge of the other ply turned, and the two plies united with a second row of stitching, as shown in the seam construction drawing of a typical example of a completed seam (b).

SEAM TYPE LSs-2



In forming this type of seam the plies of material first shall be joined, as shown in (a). One ply then shall be turned back and the plies united with a second row of stitching, as shown in the seam construction drawing of a typical example of a completed seam (b).

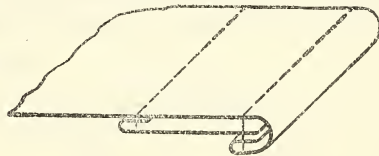
SEAM TYPE LSr-2



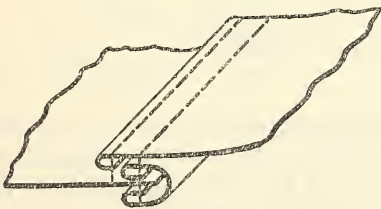
This type of seam shall be formed by turning the edge of one ply of material and lapping it over another ply, folding a binding strip over the edges of both plies, and joining with two rows of stitches, as shown in the seam construction drawing of a typical example.

This type of seam shall be formed by turning the edges of one ply of material and lapping it over another ply, turning both edges of a binding strip and folding it over the edge of both plies, and joining with two rows of stitches, as shown in the seam construction drawing of a typical example.

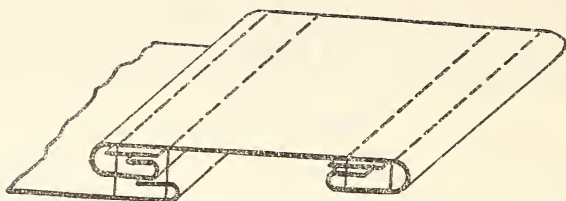
SEAM TYPE LSv-2



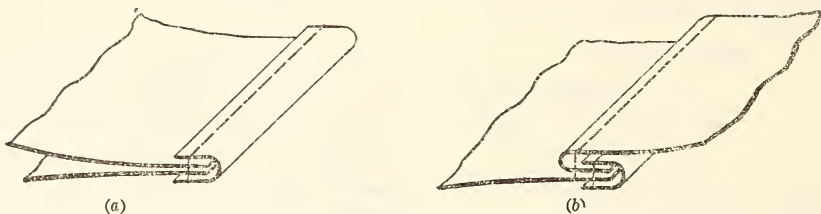
SEAM TYPE LSu-2



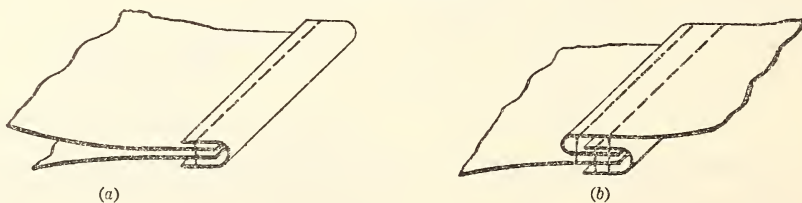
This type of seam shall be formed by turning and folding the edge of the body material over a strip of material, turning the other edge of the strip, and uniting the strip to the body of the material, as shown in the seam construction drawing of a typical example.

SEAM TYPE LS_w-4

This type of seam shall be formed by turning and folding the edges of a wide strip of material over two narrow strips, respectively; turning the edge of the body material and uniting the inner edge of the wide strip, one of the narrow strips, and the body material; uniting outer edge of the wide strip and the other narrow strip, as shown in the seam construction drawing of a typical example.

SEAM TYPE LS_x-2

This type of seam shall be formed by first superposing the plies of material, folding a binding strip over the edges of the plies, and uniting the plies and binding strip with one row of stitches, as shown in (a). The upper ply or plies of material then shall be turned back and stitched down with one row of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE LS_x-3

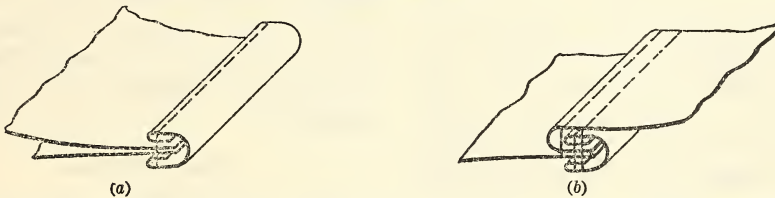
This type of seam shall be formed by first superposing the plies of material, folding a binding strip over the edges of the plies, and uniting the plies and binding strip with one row of stitches, as shown in (a). The upper ply or plies of material then shall be turned back and stitched down with two rows of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE LSy-2



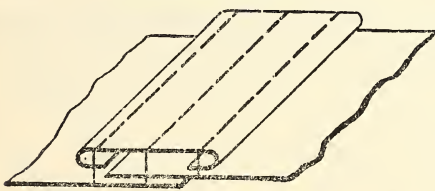
This type of seam shall be formed by first superposing the plies of material, turning the edges of a binding strip, and folding it over the edges of the plies and uniting the plies and binding strip with one row of stitches, as shown in (a). The upper ply or plies of material then shall be turned back and stitched down with one row of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE LSy-3



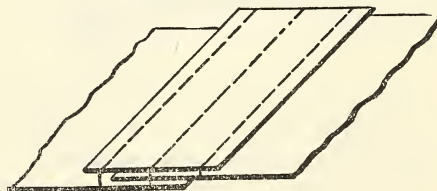
This type of seam shall be formed by first superposing the plies of material, turning the edges of a binding strip, and folding it over the edges of the plies and uniting the plies and binding strip with one row of stitches, as shown in (a). The upper ply or plies of material then shall be turned back and stitched down with two rows of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE LSz-3



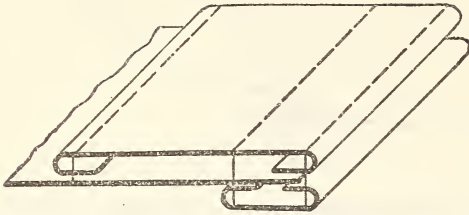
This type of seam shall be formed by overlapping two or more plies of material, covering the overlapped portions with a folded strip, and uniting with three rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSaa-3



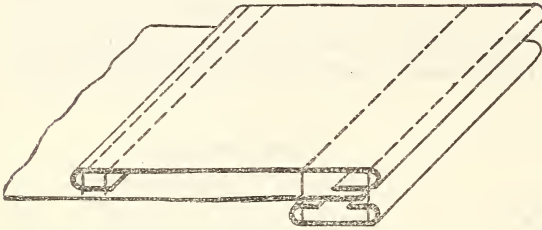
This type of seam shall be formed by overlapping two or more plies of material, covering the overlapped portions with a strip, and uniting with three rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSab-3



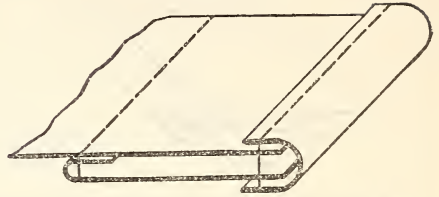
This type of seam shall be formed by turning the edges of two strips of material, substantially different in width, inserting a third ply of material between them, and uniting with three rows of stitches, as shown in the seam construction drawing of a typical example. Two rows of the stitches shall join the strips, the inner row of stitches also passing through the inserted ply; the remaining row shall join one of the strips to the inserted ply.

SEAM TYPE LSab-4



This type of seam shall be formed by turning the edges of two strips of material, substantially different in width, inserting a third ply of material between them, and uniting with four rows of stitches, as shown in the seam construction drawing of a typical example. Two rows of the stitches shall join the strips, the inner row of stitches also passing through the inserted ply; the remaining two rows shall join one of the strips to the inserted ply.

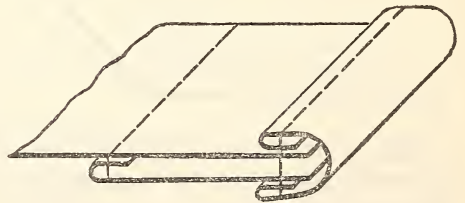
SEAM TYPE LSac-2



This type of seam shall be formed by folding a binding strip over the edge of the body material, inserting a strip between the body material and binding strip and uniting with one row of stitches, turning the other edge of the strip and joining the strip to the body material, forming the completed seam, as shown in the seam construction drawing of a typical example.

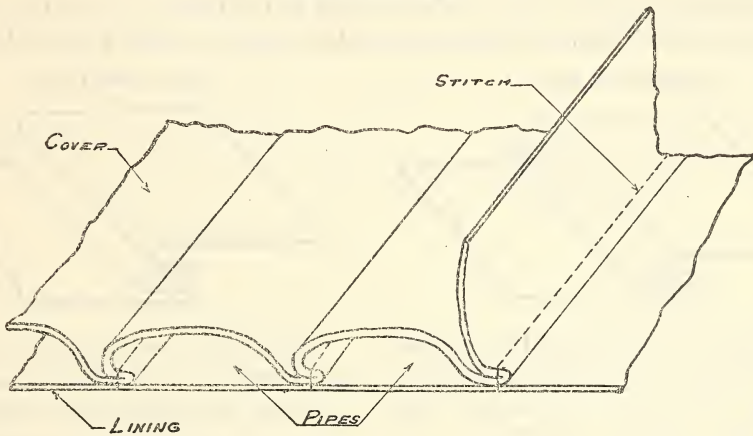
SEAM TYPE LSad-2

This type of seam shall be formed by turning both edges of a binding strip and folding it over the edge of the body material, inserting a strip between the body material and binding-strip and uniting with one row of stitches, turning the other edge of the strip and joining the strip to the body material,



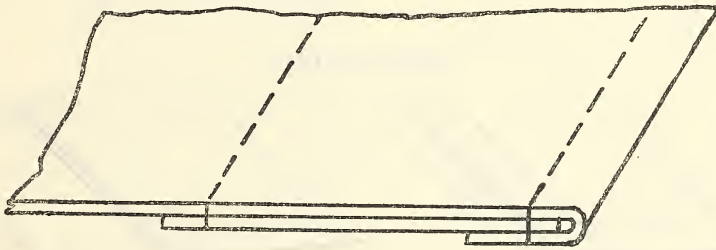
forming the completed seam, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSae-1



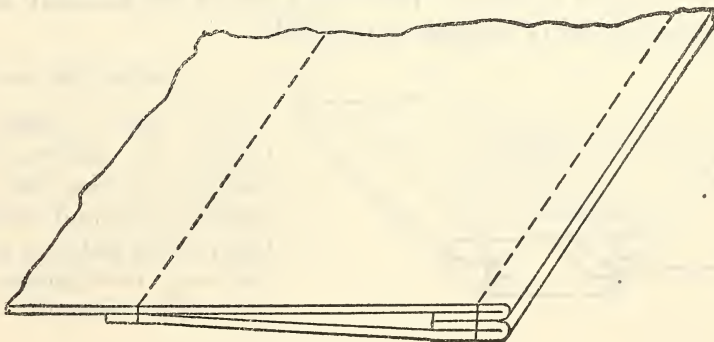
This type of seam shall be formed by folding one or more plies of material and uniting with another ply, as shown in the seam construction drawing of a typical example of three such seams.

SEAM TYPE LSaf-2



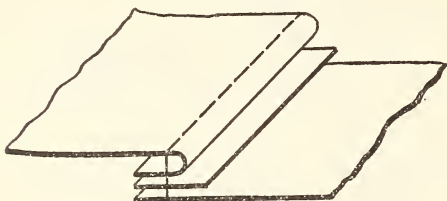
This type of seam shall be formed by turning the edge of the body material over one or more strips and uniting with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSag-2

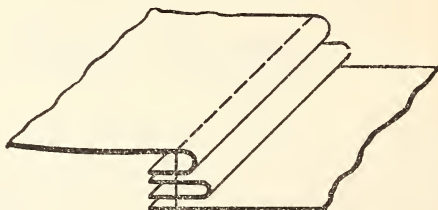


This type of seam shall be formed by turning one edge of a strip to the inside, turning the edge of the body material to the inside, and uniting with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSah-1



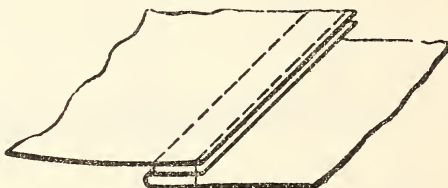
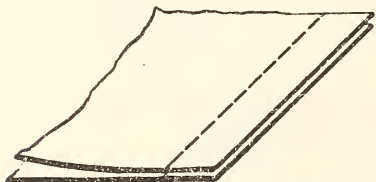
SEAM TYPE LSaj-1



This type of seam shall be formed, as shown in the seam construction drawing, by turning the edge of one ply of the material, lapping it over a second ply, inserting a strip between the two plies, and uniting all with one row of stitches, which also shall secure the turned-under portion of the one ply.

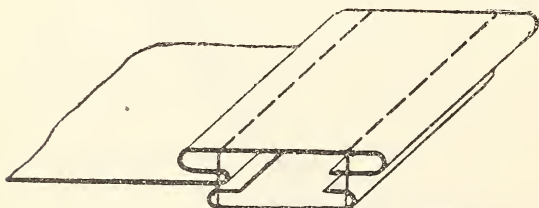
This type of seam shall be formed, as shown in the seam construction drawing, by turning the edge of one ply of the material, lapping it over a second ply, and inserting a folded strip between the two plies and uniting all with one row of stitches, which also shall secure the turned-under portion of the one ply.

SEAM TYPE LSak-2



This type of seam shall be formed by first superposing and uniting the plies of material as in forming seam type SSa-1. One ply shall then be turned back and stitched down with one row of stitches, as shown in the seam construction drawing of a typical example. The second row of stitches shall be in close proximity to the edges of the plies of material.

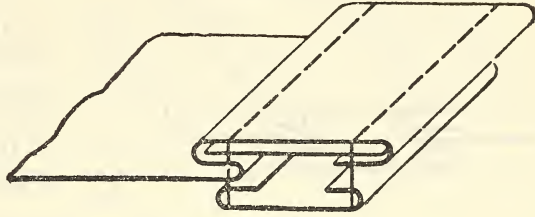
SEAM TYPE LSal-2



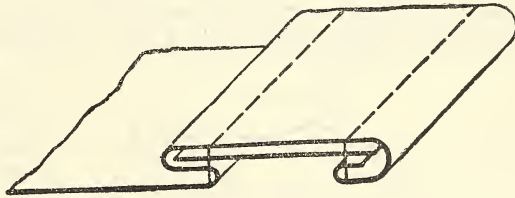
This type of seam shall be formed by folding the body material, turning the edges of another ply, and joining with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE LSam-2

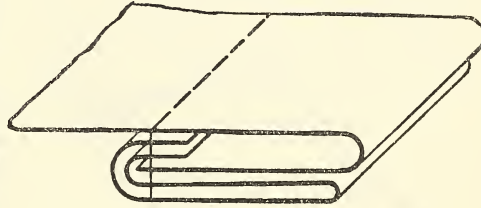
This type of seam shall be formed by folding the body material and inclosing a second ply or interlining strip, turning the edges of another ply, and joining with two rows of stitches, as shown in the seam construction drawing of a typical example.

**SEAM TYPE LSan-2**

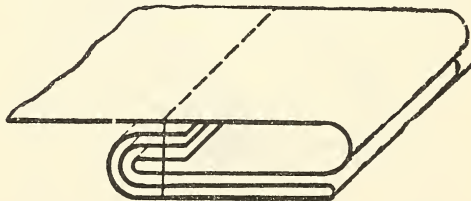
This type of seam shall be formed by folding the body material and inclosing a second ply or interlining strip and joining with two rows of stitches, as shown in the seam construction drawing of a typical example.

**SEAM TYPE LSap-1**

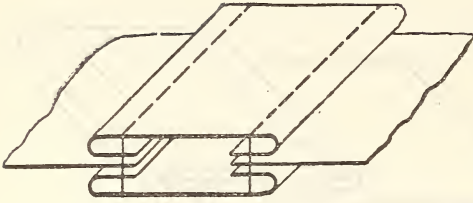
This type of seam shall be formed by turning the edge of the body material as for a hem (stitching type EFa-1), inserting one or more plies, which shall be turned back and stitched through with one row of stitches. The row of stitches shall join the turned portions of body material and inserted plies, as shown in the seam construction drawing of a typical example.

**SEAM TYPE LSaq-1**

This type of seam shall be formed by turning the edge of the body material as for a hem (stitching type EFb-1), inserting one or more plies, which shall be turned back and stitched through with one row of stitches. The row of stitches shall join the turned-over portions of body material and inserted plies, as shown in the seam construction drawing of a typical example.



SEAM TYPE LSar-2

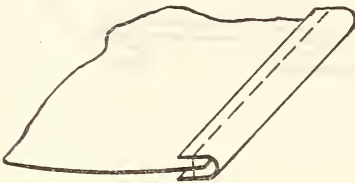


This type of seam shall be formed by folding the edges of two strips, inserting two or more pieces of material between them, and uniting with two rows of stitches, as shown in the seam construction drawing of a typical example.

4. U. S. STANDARD SEAM CLASS BS

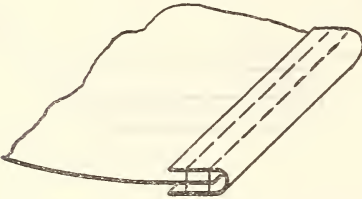
This class of seam has for a general characteristic that it is formed by folding a binding strip over the edge of one or more plies of material and joining the plies and binding strip with a series of stitches.

SEAM TYPE BSa-1



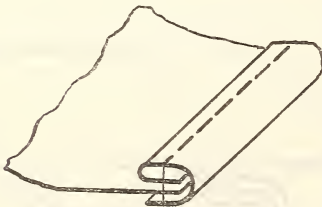
This type of seam shall be formed by folding a binding strip over the edge of the ply or plies of body material and uniting the binding strip and body material with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE BSa-2

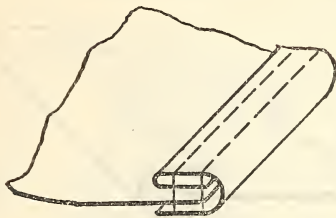


This type of seam shall be formed by folding a binding strip over the edge of the ply or plies of body material and uniting the binding strip and body material with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE BSb-1



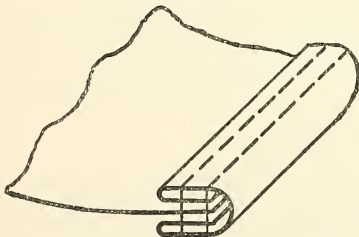
This type of seam shall be formed by turning one edge of a binding strip, folding it over the edge of the ply or plies of body material, and uniting the binding strip and body material with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE BSb-2

This type of seam shall be formed by turning one edge of a binding strip, folding it over the edge of the ply or plies of body material, and uniting the binding strip and body material with two rows of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE BSd-1

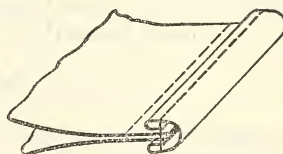
This type of seam shall be formed by turning both edges of a binding strip, folding it over the edge of the ply or plies of body material, and uniting the binding strip and body material with one row of stitches, as shown in the seam construction drawing of a typical example.

SEAM TYPE BSd-2

This type of seam shall be formed by turning both edges of a binding strip, folding it over the edge of the ply or plies of body material, and uniting the binding strip and body material with two rows of stitches, as shown in the seam construction drawing of a typical example.

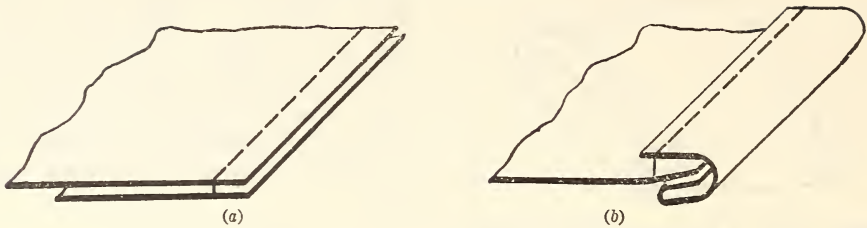
SEAM TYPE BSd-2

This type of seam shall be formed by folding a binding strip over the edges of the plies of body material, uniting the binding strip and body material with one row of stitches, and uniting the plies of body material with a second row of stitches a substantial distance from the edge, as shown in the seam construction drawing of a typical example.

SEAM TYPE BSd-2

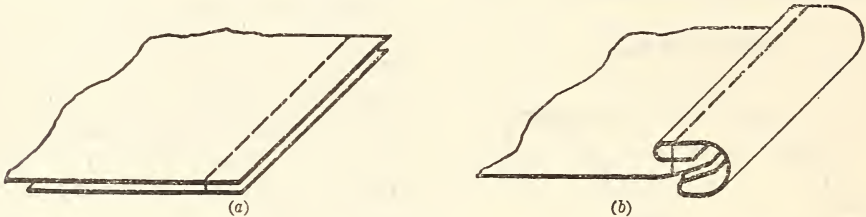
This type of seam shall be formed by turning both edges of a binding strip and folding it over the edges of the plies of body material, uniting the binding strip and body material with one row of stitches, and uniting the plies of body material with a second row of stitches a substantial distance from the edge, as shown in the seam construction drawing of a typical example.

SEAM TYPE BSf-2



This type of seam shall be formed by joining a strip to the body material, as in forming seam type SSa-1 (a); the strip shall then be folded over the edge of the body material and united with the body material with a second row of stitches, as shown in the seam construction drawing of a typical example (b).

SEAM TYPE BSg-2

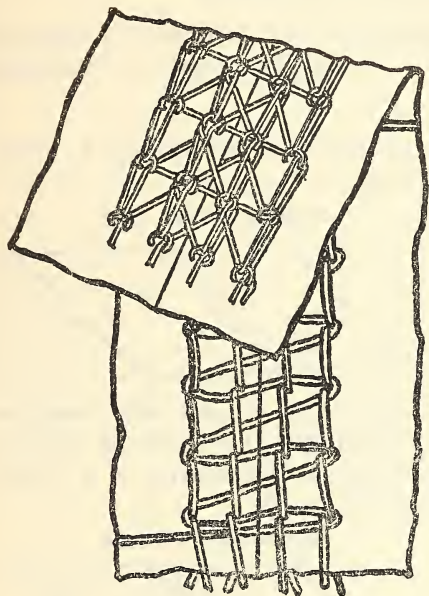


This type of seam shall be formed by joining a strip to the body material, as in forming seam type SSa-1 (a); the edge of the strip shall then be turned and the strip folded over the edge of the body material and united with the body material with a second row of stitches, as shown in the seam construction drawing of a typical example (b).

5. U. S. STANDARD SEAM CLASS FS

This class of seam has for a general characteristic that it is formed by uniting the edges of two or more plies of material in such a manner that the stitches used extend across and cover or tend to cover the edge or edges of the material.

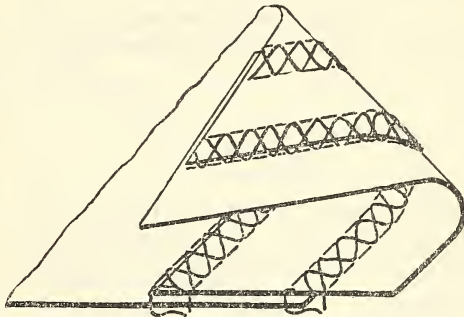
SEAM TYPE FSa-1



This type of seam shall be formed by uniting the edges of two or more plies of material with a row of stitches extending across and covering or tending to cover the edge or edges of the

material, as shown in the seam construction drawing of a typical example.

SEAM TYPE FSb-2



This type of seam shall be formed by overlapping the plies of material a substantial distance and uniting each of the edges with the other ply or plies of the material with a row of stitches extending across and covering or tending to cover the edge or edges of the material, as shown in the seam construction drawing of a typical example.

V. STITCHING

Stitching in general use is divided into classes and each class subdivided into types. Each class and type is given a symbol for convenience in reference.

The symbol for each kind of stitching is divided into three parts:

The first part denotes the class of stitching and consists of two or more upper-case letters, for example, "OS."

The second part denotes the type of the class and consists of one or more lower-case letters, for example, "a."

The third part denotes the numbers of rows of stitches used and consists of one or more arabic numerals preceded by a dash, for example, "-1." The complete symbol thus becomes, for example, "OSa-1."

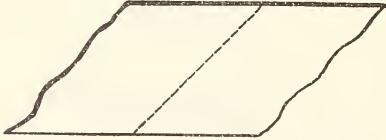
1. SPECIFICATION OF STITCHING

The specification of stitching shall include the stitching symbol prefixed by the symbol of the stitch to be used therein; thus, for example, stitching type OSa-1, formed with United States standard stitch type 101, shall be specified "101-OSa-1."

2. U. S. STANDARD STITCHING CLASS OS

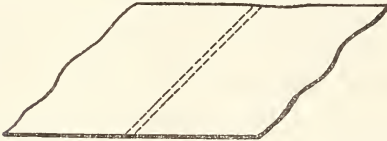
This class of stitching has for a general characteristic that a series of stitches are embodied in a material either in a straight line, a curve, or following a design.

STITCHING TYPE OS a-1



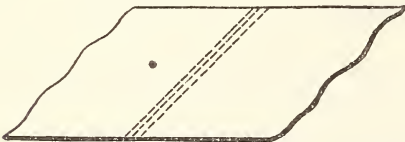
This type of stitching shall be produced with one row of stitches, as shown in the drawing of a typical example.

STITCHING TYPE OSa-2



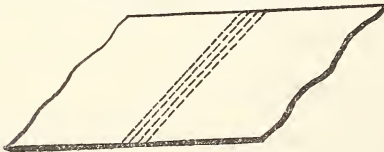
This type of stitching shall be produced with two rows of stitches, as shown in the drawing of a typical example.

STITCHING TYPE OSa-3



This type of stitching shall be produced with three rows of stitches, as shown in the drawing of a typical example.

STITCHING TYPE OSa-4



This type of stitching shall be produced with four rows of stitches,

as shown in the drawing of a typical example.

STITCHING TYPE OSa-5



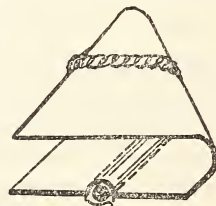
This type of stitching shall be produced with five rows of stitches, as shown in the drawing of a typical example.

STITCHING TYPE OSa-6

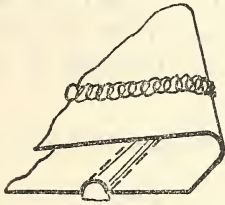


This type of stitching shall be produced with six rows of stitches, as shown in the drawing of a typical example.

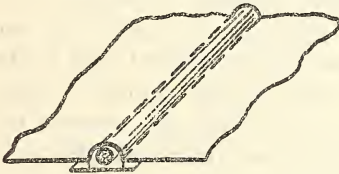
STITCHING TYPE OSb-1



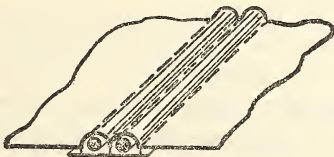
This type of stitching shall be produced by inserting a cord between the material and the locking thread of the stitch, as shown in the drawing of a typical example, thus forming a ridge or corded effect. Stitch types 102, 302, 402, and 406 are used to produce this type of stitching.

STITCHING TYPE OS_c-1

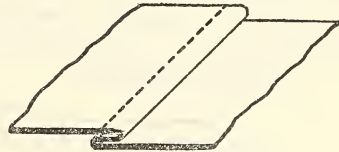
This type of stitching shall be produced by forming the material in a ridge, giving a corded effect without inserting a cord, as shown in the drawing of a typical example. Stitch types 102, 302, 402, and 406 are used to produce this type of stitching.

STITCHING TYPE OS_d-2

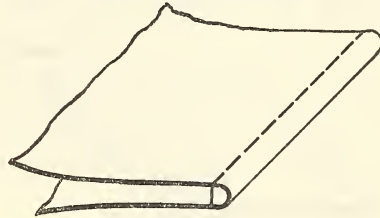
This type of stitching shall be produced by inserting a cord between two plies of material and uniting the plies with two rows of stitches, one row on each side of the cord, as shown in the drawing of a typical example.

STITCHING TYPE OS_d-3

This type of stitching shall be produced by inserting two cords between two plies of material and uniting the plies with three rows of stitches, one row between the two cords, one row on the respective outer sides of the cords, as shown in the drawing of a typical example.

STITCHING TYPE OS_e-1

This type of stitching shall be produced by folding the material, as shown in the diagram, and uniting the fold with the body of the material with one row of stitches.

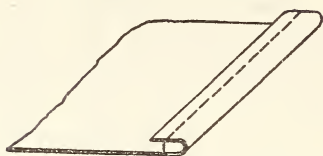
STITCHING TYPE OS_f-1

This type of stitching shall be produced by folding and uniting the plies of the material near the fold, as shown in the drawing of a typical example.

3. U. S. STANDARD STITCHING CLASS EF

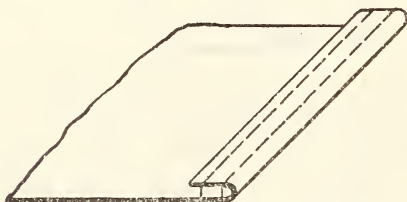
This class of stitching has for a general characteristic that a series of stitches are formed at or over the edge of a material, the edge being either folded or not folded, or that the edge of the material is folded and joined to the body of the material with a series of stitches.

STITCHING TYPE EFa-1



This type of stitching shall be produced by turning the edge of the material and uniting the portion so turned to the body of the material with one row of stitches, as shown in the drawing of a typical example.

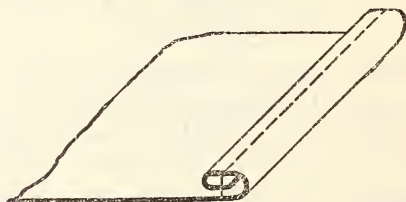
STITCHING TYPE EFa-2



This type of stitching shall be produced by turning the edge of

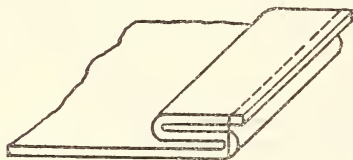
the material and uniting the portion so turned to the body of the material with two rows of stitches, as shown in the drawing of a typical example.

STITCHING TYPE EFb-1

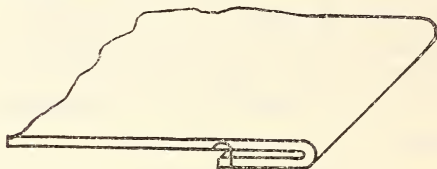


This type of stitching shall be produced by turning the edge of the material, folding it back over the body of the material, and uniting the portion so turned and folded to the body of the material with one row of stitches, as shown in the drawing of a typical example.

STITCHING TYPE EFc-1



(a)



(b)

This type of stitching shall be produced by turning the edge of the material, as shown in the drawing (a), and uniting the portion so turned to the body of the material with one row of stitches. In sewing, the material shall be so guided that the needle only partially penetrates the folded edge. When the material is laid flat, the stitches shall not show on the outer face of the material. (See (b).)

STITCHING TYPE EFd-1



This type of stitching shall be produced by placing a row of stitches over the edge of the material, as shown in the drawing of a typical example.



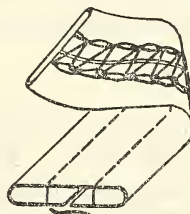
tween the fold and the body of the material, and uniting with two rows of stitches, as shown in the drawing of a typical example. The strip shall be secured by only one row of stitches.

STITCHING TYPE EFh-1

STITCHING TYPE EFe-1

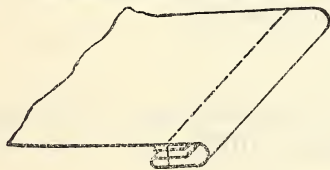


This type of stitching shall be produced by turning the edge and placing a row of stitches over the edge of the material, as shown in the drawing of a typical example.



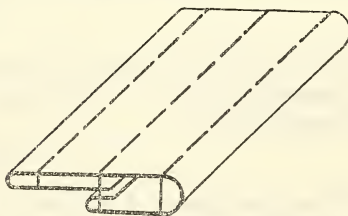
This type of stitching shall be produced by turning both edges of a strip of material, bringing the edges approximately together, and uniting the portion so turned with a row of stitches extending across and covering or tending to cover the edges of the material.

STITCHING TYPE EFf-1



This type of stitching shall be produced by turning and folding the edge of the material, guiding a strip between the fold and the body of the material and uniting with one row of stitches, as shown in the drawing of a typical example.

STITCHING TYPE EFj-3



This type of stitching shall be produced by turning both edges of a strip of material, overlapping the edges, one of which is again folded, and uniting the portions so turned and overlapped with three rows of stitches, as shown in the drawing of a typical example.

STITCHING TYPE Efg-2

This type of stitching shall be produced by turning and folding the edge of the material, guiding a strip be-

VI. CHARACTERISTICS OF SEAMS

The characteristics of any properly formed seam are (1) strength, (2) elasticity, (3) durability, (4) security, and (5) appearance. These characteristics are discussed in order, as follows:

1. STRENGTH

A seam should be of sufficient strength to withstand the strain to which it will be subjected in the use or wear of the article of which it is a part. The elements affecting the strength of a seam are:

- (a) The type of stitch used;
- (b) The thread combination used;
- (c) The number of stitches per unit length of seam;
- (d) The tightness of the seam;
- (e) The construction of the seam.

2. ELASTICITY

The elasticity desirable in a seam is determined by the elasticity of the material to be sewed. The elasticity of the seam should equal that of the material or materials joined. The elasticity of a seam produced of a properly-formed, tightly-drawn stitch depends upon the type of stitch employed.

3. DURABILITY

The durability of a seam depends largely upon its strength and the relation between the elasticity of the seam and the elasticity of the material. In the less elastic, tightly woven, and dense materials there is a tendency for the plies to "work" or slide, each on the other. To form a durable seam in such materials, the stitch must be tight and the thread well set to the material to minimize abrasion and wear by contact with outside agencies.

4. SECURITY

The security of a seam depends on the character of the seam, on the strength and durability of the thread used in forming the stitch, and on the type of stitch employed.

5. APPEARANCE

The appearance of a seam is largely controlled by the seam construction. Under certain conditions it is essential that both sides of the seam appear the same; as, for instance, edge-stitching coats where the lapel is turned.

Each of these factors must be considered in determining the type of stitch to be employed in a seam for any given operation.

VII. GUIDE TO USE OF STITCHES IN SEAMS

The following table indicates, in general, the suitability of the various types of stitches according to the type of seam or stitching and the operation for which used.

Guide to use of stitches in seams

Seam type	Operation	Types of standard stitches suitable
LSb-1 to LSb-3	Seaming	301, 401, 402, 406.
LSc-1 to LSc-3	do	301, 401.
LSd-1 to LSd-3	Attaching pieces to body of material	301, 401, 406.
LSe-1 to LSe-3	Seaming	301, 401.
LSf-1 and LSf-2	do	301, 401.
LSg-2 and LSg-4	Facing (center plaits, stays, etc.)	101, 301, 401.
LSj-2	do	101, 301, 401.
LSk-2	do	101, 301, 401.
LSl-2	Facing and seaming (center plaits, stays, etc.)	301, 401.
LSm-2	Facing (center plaits, stays, etc.)	101, 301, 401.
LSn-1	do	301, 401.
LSp-2	Closing and taping	301, 401.
LSq-2 and LSq-3	Seaming	201, 301, 401.
LSr-2	do	301, 401.
LSs-2	do	301, 401.
LSt-2	do	301, 401.
LSu-2	do	301, 401.
LSv-2	Facing (center plaits, stays, etc.)	101, 301, 401.
LSw-4	Attaching elastic cuffs	301, 401.
LSx-2 and LSx-3	Seaming	301, 401.
LSy-2 and LSy-3	do	301, 401.
LSz-3	do	101, 301, 401.
LSaa-3	do	101, 301, 401.
SSa-1	Basting	101.
SSa-1 and SSa-2	Seaming (straight)	301, 302, 401, 402.
	Seaming (zigzag)	304, 404.
	Seaming (overedge)	501, 502, 503, 504, 506.
	Seaming (using waxed thread)	101, 201, 301.
SSb-1 and SSb-2	Seaming (straight)	301, 302, 401, 402.
	Seaming (overedge)	501, 502, 503, 504, 506.
SSc-1 and SSc-2	Finishing where stitch alike on both sides is essential.	301.
	Seaming (straight)	301, 302, 401, 402.
SSd-1	Seaming (overedge)	501, 502, 503, 504, 506.
	Seaming (straight)	301, 302, 401, 402.
SSe-2 and SSe-3	Seaming (overedge)	501, 502, 503, 504, 506.
	Seaming	301, 302, 401, 402.
SSf-3	Making cuffs, collars, etc., and edge stitching on coats and shoes.	301.
	Taping or staying	301, 401.
SSH-2	Cover seaming	401, 406.
SSj-1	Seaming	201, 301, 302, 401, 402.
SSk-1	do	201, 301, 302, 401, 402.
SSI-1	do	301, 302, 401, 402.
SSm-1	Seaming or felling where a blind stitch is required.	101, 301.
SSn-1	Seaming	101, 301, 302, 401, 402.
SSp-1	do	301, 302, 401, 402.
SSq-2 and SSq-3	do	301, 401.
LSa-1 to LSa-4	do	301, 401, 402, 406.
	Seaming (using waxed thread)	101, 201, 301.
LSab-3 and LSab-4	Banding	101, 301, 401.

Guide to use of stitches in seams—Continued

Seam type	Operation	Types of standard stitches suitable
LSac-2	Facing and binding	301, 401.
LSad-2	do	301, 401.
LSae-1	Undersewing cushions	301, 401.
LSaf-2	Staying automobile quarters	301, 401.
LSag-2	do	301, 401.
LSah-1	Seaming	301, 401.
LSaj-1	do	301, 401.
LSak-2	do	301, 401.
LSal-2	Facing (center plaits, stays, etc.)	101, 301, 401.
LSam-2	do	101, 301, 401.
LSan-2	do	101, 301, 401.
LSap-1	Finishing	301, 401.
LSaq-1	do	301, 401.
LSar-2	Facing and seaming	301, 401.
BSa-1 and BSa-2	Binding, bound seaming	301, 304, 401, 404, 406, 602, 603, 604.
BSb-1 and BSb-2	do	301, 304, 401, 404, 406.
BSc-1 and BSc-2	do	301, 304, 401, 404.
BSc-2	Binding and seaming	301, 401.
BSe-2	do	301, 401.
BSf-2	Seaming and binding	301, 401.
BSg-2	do	301, 401.
FSa-1	Seaming	304, 404, 604, 605, 606.
	Attaching collars, cuffs, borders, etc., to knitted articles.	602, 603, 604, 605, 606.
	Attaching edging, lace, etc.	601, 602, 603.

Guide to use of stitches in stitching

Stitching type	Operation	Types of standard stitches suitable
FSb-2	Seaming	604, 605, 606.
OSa-1 to OSa-6	Ornamental	101, 102, 301, 302, 303, 401, 402, 403, 603, 604.
	Ornamental (zigzag)	304, 305, 404, 405.
OSb-1	Cording	102, 302, 402, 406.
OSc-1	do	102, 302, 402, 406.
OSd-2 and OSd-3	do	101, 301, 401.
OSe-1	Tucking or plaiting	101, 301, 401.
OSf-1	Tucking and mock seaming	101, 301, 401, 503.
EFa-1 and EFa-2	Hemming (one fold)	101, 301, 401, 406, 603.
EFb-1	Hemming (two folds)	101, 301, 401, 502, 503, 504, 505.
EFc-1	Blind hemming (woven)	101, 301, 401.
EFd-1	Blind hemming (knit)	101, 401, 503, 505.
	Ornamental edge finishing	404, 405, 503, 505, 506, 601, 603, 604, 605, 606.
EFe-1	do	502, 503, 504, 505, 506.
	Zigzag	304, 404.
EFf-1	Hemming with elastic band	101, 401.
EFg-1	do	101, 401.
EFh-1	Making loops or straps	406.
EFj-3	Making straps	401.
	Making straps (using waxed thread)	101, 301.