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## Standard Terminology of Basic Sewing Machine Stitches for Home Use<sup>1</sup>

This standard is issued under the fixed designation D 5646; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This terminology covers basic stitches made by sewing machines designed for home use. These terms and definitions are not necessarily consistent with those used in the apparel or home furnishings manufacturing industries. Each stitch is identified with a definition, a discussion of how the stitch is formed and might be used and an illustration of one or more possible stitch patterns. This terminology does not include stitches made by sergers, hemmers, or by attachments to the home sewing machines.

1.2 Additional terms can be found in Terminology D 123.

### 2. Referenced Documents

2.1 *ASTM Standards:*

D 123 [Terminology Relating to Textiles](#)

2.2 *Federal Standard:*

Fed. Std. 751a, Stitches, Seams and Stitching<sup>2</sup>

### 3. Terminology

**blind hem stitch**, *n*— *in home sewing* a complex machine stitch pattern consisting of small groups of straight or narrow zigzag stitches separated by a wide zigzag stitch unit at consistent intervals. (See Fig. 1.)

DISCUSSION—The blind hem stitch is used to make and lessen the visibility of hems in finished textile products. Other potential applications include seam finishes on soft fabrics and decorative work.

**buttonhole stitch**, *n*— *in home sewing*, a complex machine stitch pattern made by coordinated motions of needle and feed, appearing as very close stitches forming a narrow rectangle of stitching that is usually composed of four stitch segments, one on each side and on each of the two ends of the rectangle. (See Fig. 2.)

DISCUSSION—The buttonhole stitch is used for making buttonholes on garments and other textile products. In a keyhole buttonhole, one end is rounded rather than straight.

**complex machine stitch pattern**, *n*— *in home sewing*, a machine stitch pattern formed when two or more simple machine stitch patterns are combined in one repeating unit. (Compare simple machine stitch pattern.)

DISCUSSION—Complex machine stitch patterns include the blind hem stitch, buttonhole stitch, and straight stitch.

**lockstitch**, *n*— *in home sewing*, a type of stitch formed with two threads: one needle thread and one bobbin thread interlaced with each other.

DISCUSSION—The needle thread passes through the material and interlaces with thread from the bobbin so that the interlacing is midway between surfaces of the material(s) being sewn. Other lock stitch formations are available for industrial use. (See Fig. 3.)

**machine stitch**, *n*— *in home sewing*, the resulting arrangement of sewing threads in a repeating unit formed by a sewing machine.

DISCUSSION—Stitches are categorized as either simple or complex sewing machine stitch patterns. (See **straight stitch**, **single stitch zigzag**, **multiple stitch zigzag**, **blind hem stitch**, **buttonhole stitch**, and **stretch stitch**. Stitches made by serger and hemmers are not included in this definition.

**sewing machine**, *n*— *in home sewing*, a machine that uses needles and bobbin threads in the stitch formation and is primarily for home sewing use rather than industrial use.

<sup>1</sup> This terminology is under the jurisdiction of ASTM Committee [D-13](#) on Textiles and is the direct responsibility of Subcommittee [D13.53](#) on Practices. Current edition approved Feb. 10, 1996. Published July 1996. Originally published as D5646-94. Last previous edition D5646-95a.D13 on Textiles and is the direct responsibility of Subcommittee [D13.54](#) on Subassemblies.

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<sup>2</sup> Annual Book of ASTM Standards, Vol 01.01.

<sup>2</sup> Printed in 1965 as Federal Standard No. 751a, Stitches, Seams and Stitching, General Services Administration, Washington, D.C. 20407. Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.



FIG. 1 Multiple Stitch Zigzag

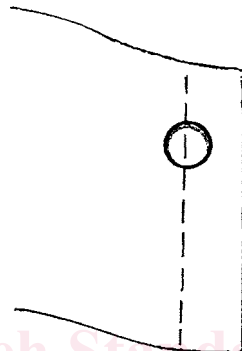
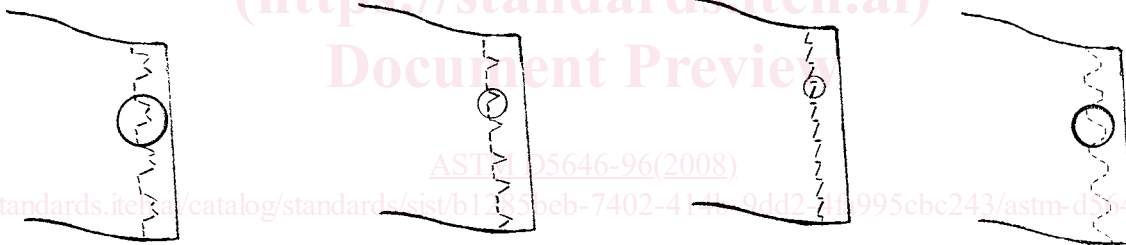


FIG. 2 Straight Stitch



NOTE 1—The repeating units are circled.

FIG. 4 3 Stretch Stitch Examples

DISCUSSION—Specialized sewing machines such as sergers and hemmers are not included in this definition. On a sewing machine, on or two needle(s) move up and down and might move side to side as the fabric moves through the feed mechanism in either the forward or reverse direction.

**single stitch zigzag, *n***— *in home sewing*, a simple machine stitch pattern made by the needle moving up and down and alternately from one side to the other while the fabric moves through the feed mechanism in either the forward or reverse direction with all segments having equal length and equal width. (Compare **multiple stitch zigzag**.)

DISCUSSION—The single stitch zigzag may be used for stitching plain seams to give extensibility to finish the raw edges of seams, to apply trims, to mend tears, or to stitch decorative patterns.

**multiple stitch zigzag, *n***— *in home sewing*, a simple machine stitch pattern of alternating diagonal segments with each segment of two or more stitches having equal length and width.

DISCUSSION—A simple machine stitch pattern is made by the needle making two or more stitches in one direction before completing the same number of stitches in the opposite direction as the fabric moves under the presser foot. (Compare **simple stitch zigzag**.) (See Fig. 1.) Applications of the multiple and single stitch zigzag patterns are similar.

**simple machine stitch pattern, *n***—*in home sewing*, a repeating segment of machine stitches, with each repeat consisting of one or more stitches long. (Compare complex machine stitch pattern.)

DISCUSSION—Simple machine stitch patterns include straight stitch, stitch zigzag and multiple stitch zigzag.

**stitch, *n***—the repeated unit formed by a sewing thread(s) through a material or materials such as a textile fabric.

**stitching, *n***—a series of stitches embodied in a material or materials such as a woven, knitted or textile fabric for ornamental