

fabric preparation for sewing

Preparation of fabric for cutting and sewing involves the following steps: straightening, shrinking, pressing.

The success of a finished garment depends largely on these important steps. Before discussing these, certain words need to be defined and should become a working part of any seamstress vocabulary.

Terminology

Selvage—The selvage (sometimes spelled selvedge) is the finished edge of the fabric and runs lengthwise on the bolt of fabric. A selvage is found on both edges of woven fabric. The width of the selvage is one key to the quality of the fabric. In good fabric, the selvage is about $\frac{1}{2}$ inch wide and firmly woven.

Grain—The grain of fabric refers to the directions in which the threads of the woven fabric run. There are two grain lines—lengthwise and crosswise.

Lengthwise grain line—The lengthwise grain lines are the threads running parallel to the selvage. The lengthwise grain is often referred to as the "straight-of-fabric." Generally, the lengthwise threads are stronger and more stable than the crosswise threads and are usually cut going up-and-down the body. This insures a better fitting and hanging garment. Fig. 1.

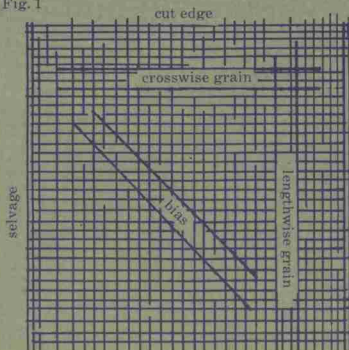
Crosswise grain lines—The crosswise grain lines are the threads running across the fabric from selvage to selvage and at right angles to the lengthwise grain line. These threads are usually cut to go around the body.

Bias—The bias is the direction that slants across the lengthwise and crosswise threads. A true bias line makes a 45-degree angle with the lengthwise and crosswise threads and is obtained by folding the fabric so these threads are perpendicular.

The bias direction has the greatest amount of stretch.

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Fig. 1



Grain and the Human Figure

There is a definite relationship between the fabric grain lines and the human body.

The body has an up-and-down direction and a crosswise direction just like the fabric does. This correctness of relationships must be maintained if the finished garment is to hang and fit the body properly without undesirable wrinkles developing. The correct positioning of grain lines on the body also makes clothing more comfortable to wear.

As a general rule, the lengthwise grain line of the fabric is cut to hang up-and-down the body in a line that is perpendicular to the floor. The cross-

wise grain line of the fabric is cut to go around the body perpendicular to the lengthwise grain line. (There are a few exceptions to this; the main one being when a garment is cut on the bias.)

In order to cut the fabric so that it will fall on the body correctly, the seamstress must: (1) straighten the ends of the fabric, (2) return the fabric to grain perfection, (3) shrink the fabric, (4) fold the fabric correctly, and (5) place the pattern on the fabric so that the arrow on the pattern corresponds with the lengthwise grain line of the fabric.

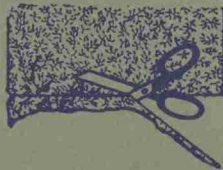
Straightening the Ends of the Fabric

There are several ways the ends of fabric can be straightened.

1. Pulling a crosswise thread.—Clip selvage of fabric. Pull a crosswise thread until it breaks. Cut fabric. Fig. 2. Repeat from end of cut until entire width is straightened.
2. Tearing the fabric.—Some fabrics can be torn without damaging them. Clip selvage and tear in crosswise direction.
3. Following a crosswise thread.—Some fabrics cannot be straightened by either of the above methods. In this case, follow the crosswise grain line with eye and mark with chalk. Cut on marked line. If grain line thread is hard to follow with the eye, hold fabric up to the light.



Fig. 2



Straightening The Grain

Fabric is always woven so that the crosswise grain lays perpendicular to the lengthwise grain. During the finishing process, however, the fabric sometimes loses this true right angle construction. Some fabrics can be returned to grain perfection; others cannot.

Fabrics that cannot be straightened and made grain perfect have permanent finishes applied to make them crease-resistant, water-repellent, stain-resistant, "easy-care" permanent press, etc. These finishes are usually done by resin treatment and heat setting that locks the grain into position. If during the finishing process the grain is distorted, it will stay that way.

Check resin treated fabrics closely before buying. See Section—Determining Grain Perfection of Fabrics When Buying. If the fabric is badly off-grain and you choose to buy it, the garment in many designs will not fit as well as it should. Avoid buying fabrics that have plaids, checks or printed motifs since these designs cannot be matched correctly or be even with the design around the hem of the garment.

After straightening the ends of the fabric, fold the fabric lengthwise matching and pinning together the selvage edges. Match and pin the ends together. If the fabric lays flat, it is on-grain. If wrinkles or folds develop, the fabric is off-grain and must be straightened.

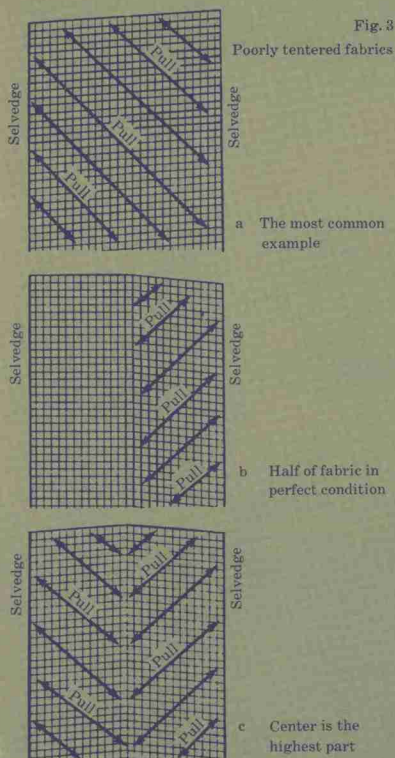
To straighten non-resin treated fabric, open the fabric up. Pull the fabric on the true bias in the direction opposite to the higher of the grain edges. Fig. 3. By doing this, the crosswise threads on grain lines can be pulled back into perfect alignment. Sometimes this process must be repeated several times before fabrics are in proper condition.

Any fabric can be straightened with less effort when it is wet. For this reason, many people wish to shrink their fabric first. Just before the fabric is dry, pull on true bias to straighten grain lines.

Shrinking Washable Fabrics

All fabrics should be preshrunk to insure proper size and length for the lifetime of the garment. Fabrics carrying the label which reads "no more than 2 per cent shrinkage" means the average skirt length can shrink about $\frac{1}{2}$ inch after it is washed.

If the finished garment is to be laundered in the washing machine, preshrink fabric by washing. Use detergent and temperature of water correct for fabric. Since a greater amount of shrinkage occurs in the automatic drying process than when dried by natural means, dry the fabric in the same manner as you intend to dry the finished garment.



If the finished garment is to be hand washed, dampen fabric by soaking it in warm water for about 30 minutes or until thoroughly and evenly wet. Squeeze out water. Put selvedge edges together, and hang on line to dry.

Shrinking Woolens and Non-Washable Fabrics

There is no way of determining how much, if any, different pieces of wool fabric will shrink. Always read the hangtag, if there is one, to see what the manufacturer says in relation to amount of shrinkage. The phrases "sponged and shrunk," "ready-for-the-needle," and "preshrunk" may be found on some hangtags. None of these phrases mean the fabric is guaranteed against shrinkage.

Nothing is gained by by-passing the shrinking process. In fact, much may be lost if after the first drycleaning or washing, the garment will not fit.

There are two methods of preshrinking wool fabric. One method is to have a drycleaner steam the fabric. A reliable drycleaner usually returns the fabric to grain perfection.

The coin-operated drycleaning machines may be used if the finished garment is to be cleaned by this method.

The London Shrink Method is another means of preshrinking *wool* fabric only. (1) Wet a sheet in lukewarm water; wring out. (2) Fold sheet lengthwise and lay on flat surface. (3) Fold fabric. Baste ends together; place fabric on sheet. The sheet should extend beyond the fabric on all sides. Fig. 4. It is sometimes necessary to use two sheets to get length desired. (4) Fold unused portions of sheet over the fabric. (5) Loosely fold sheet and fabric together keeping fabric and sheet as wrinkle free as possible. Use folds about 12 inches deep. (6) Place folded fabric in plastic to keep from drying. (7) Let lightweight wool stand 6 to 8 hours; let heavyweight wool stand 10 to 12 hours. (8) Unfold and lay fabric on flat surface. Smooth and shape fabric until the crosswise grain lines are at right angles to the lengthwise ones. The fabric should lay flat. (9) Turn fabric over once during drying process. (10) When fabric is dry, remove bastings. Steam press fabric lightly to remove wrinkles, if necessary.

Other non-washable fabrics should be preshrunk by either a professional drycleaner or in a coin-operated machine.

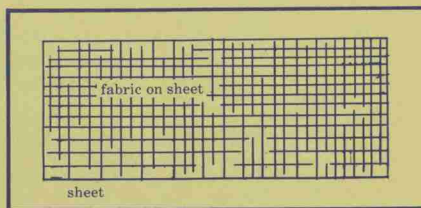


Fig. 4

A Special Fabric

Fake fur needs to be preshrunk before cutting. Check the label to determine if the fabric is washable or drycleanable.

Fabrics That Do Not Need Preshrinking

Real leather, suede and fur do not need preshrinking. Vinyl is completely stable and needs no fabric preparation before cutting.

Preparing Knit Fabrics

Knit fabrics, both wool and man-made, should be preshrunk. Besides insuring adequate size and length for the lifetime of the garment, preshrinking removes any excess finish that has remained in the fabric. Failing to remove this excess solution before stitching often causes the sewing machine needle to become coated, resulting in skipped stitches.

Wool knit fabrics should be drycleaned. Man-made fabrics such as polyester may be washed.

Knitted fabrics do *not* have a grain. They do, however, have a rib. This rib gives the true lengthwise direction of the fabric and is visible from the right side or on both sides of the fabric.

When folding knit fabric correctly so that the lengthwise rib will run up-and-down the body, locate a lengthwise rib where fabric is to be folded. Keep the lengthwise fold true with this rib.

Shrinking Findings

Consider all findings—fabrics for linings, underlinings, facing and interfacings; tapes; zippers—when preparing for cutting out of a garment. *All fabrics should be preshrunk.* In a lined garment, the two fabrics must act as one. It would be a disaster if one fabric shrunk after the garment was constructed. Hair canvas interfacing needs to be thoroughly dampened, dried and carefully steam-pressed on lengthwise grain of fabric.

Shrink all zippers and tapes when putting them in fabrics that are completely stable such as permanent press fabrics.

Pressing Fabric

If fabric needs ironing before cutting, iron in the lengthwise direction only. This keeps the fabric true and straight. Never push the iron in a bias direction. This gives the fabric a pebbly, bumpy appearance.

Determining Grain Perfection of Fabrics When Buying

The fabrics with permanent finishes applied, the bonded or laminated fabrics, and many of the 100 per cent man-made fabrics are fairly stable with the grain locked into position. Most of these fabrics cannot be returned to grain perfection. To determine before purchasing if fabric is finished off-grain, unroll about a yard from the bolt. Match the selvages so fabric lays flat. Fold back half of the fabric. Fig. 5. With the eye, determine if the crosswise threads are perpendicular to the selvage. Check on both sides of the lengthwise center fold. Often half of the fabric is on-grain; the other half is off. If there is *no more than* 1-inch variation from the right-angle position, the fabric will be a satisfactory buy providing it is a plain color or all-over design. No variation is desirable if the fabric is completely stable and features stripes, plaids, checks or motif design.

Non-resin treated fabrics can be checked this way also. They can, however, be pulled back into grain perfection.

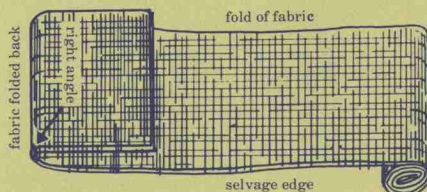


Fig. 5

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