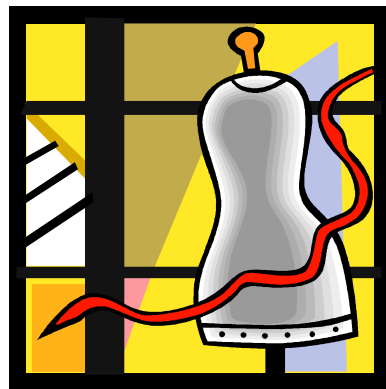
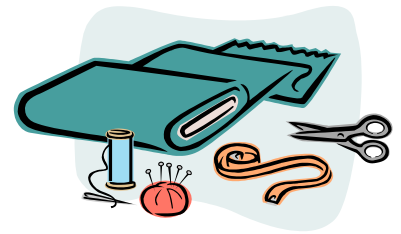




COLORADO STATE UNIVERSITY
EXTENSION

Colorado 4-H Guide for Clothing Judges



Standards of Quality Clothing Construction

Introduction

One of our basic tasks in evaluating or judging is to be able to recognize and identify the standards that give a garment a finished, professional look. There are many techniques that can be used to accomplish the same end product. Each of us has techniques that we like and techniques that we dislike. In an objective evaluation it is essential to play down our personal preferences and to build upon identified and accepted standards.

In general, there are some standards that apply to almost all techniques. Almost all construction techniques should result in an area, finish or detail that is:

- Inconspicuous
 - Flat and smooth
 - Free from bulk
 - Stitching a uniform distance from an edge or fold
- Functional
- Durable –stitching uniform and secure

Specific standards that can be expected in good construction are listed on the following pages. They are organized by techniques and/or areas, and the techniques are presented in alphabetical order.

Overall Appearance

Be objective when considering the overall appearance and appeal of a garment. It may be helpful to think about there being at least one especially pleasing feature about this garment, reflecting the many hours of thought, effort and creativity that went into its construction. It may be the design, fabric, use of unusual technique or detail. Particularly neat and well-done machine or handstitching, etc.

- Overall neatness and cleanliness
- Plaids, stripes, checks and other designs matched at seams
- Fabric with a direction in design or nap issued in garment in one direction unless garment design requires variation.
- Pressing is done throughout construction
- Notions compatible with fabric and garment design, color, fiber and weight
- Basting threads removed, sewing threads clipped
- Care label is sewn into garment, is desirable but not mandatory

Belts

- Flat, smooth, free from bulk
- Straight belt, uniform in width
- Contour belt, smooth, gradual curves
- Interfaced
- Corners are square
- Shape at end of belt, a sharp point, gradual curve
- Closure is appropriate, attractive and durable

Bindings

- Smooth, uniform, flat or rounded as appropriate
- Seams graded to eliminate bulk
- Stitching is straight
- Width is uniform (unless design requires variation)

Buttons

- Size is appropriate to fabric and style of garment
- Function
- Securely fastened
- Color is well coordinated with fabric
- Have a shank; allows room for fabric layers that lie under them
- Reinforced on the wrong side with interfacing, reinforcement button
- A space, in good proportion, between button and edge of garment
- Placed in relation to buttonholes; when buttoned, layers are completely flat and smooth



- Secure
- Even in length and width
- Uniform in appearance
- On grain of fabric
- Placed in direction of pull
- Equally distant apart
- Correct length, allows button to pass easily and yet small enough to hold garment closed
- Correct placement
 - On right front of women's garment
 - On left front of men's garments
 - Overlapping occurs where it was designed, i.e., center front, center back, side seams at neck, fullest part of bust, and waist
- Rectangle is no wider than $\frac{1}{4}$ " except for bulky fabrics
- Lips are even width
- Lips meet exactly at center of rectangular opening
- Facing securely fastened—back of buttonhole finished

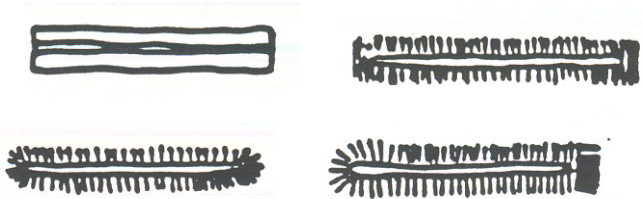
Worked Buttonholes

- May be hand-worked or machine-made
- Flat
- Secure; all stitched intact
- Even in length and width
- Uniform in appearance
 - Length of stitch
 - Regularity of stitch
- Stitched in thread that matches fabric
- On the grain of the fabric
- Cut in direction of pull; eliminates gaping
- Equally distant apart
- Correct length; allows button to pass through easily and yet small enough to hold garment closed
- Correct placement
 - On right front of women's garment
 - On left front of men's garment

Bound Buttonholes

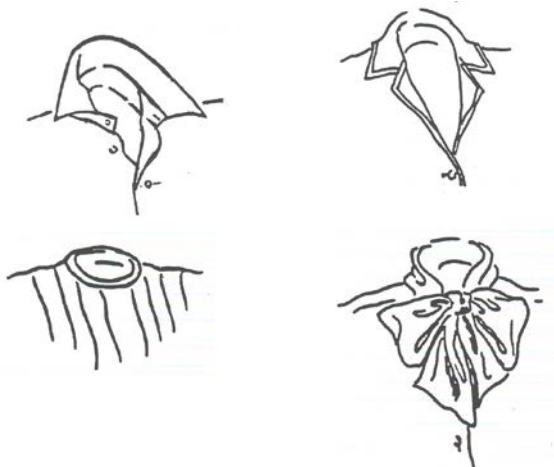
- Flat

- Overlapping occurs where it was designed; center front, center back, side seams
- Important placement points are at neck, fullest part of bust and waist; other buttons evenly spaced between; lowest button located above hem



Collars

- Free from bulk
 - Curved seams clipped or wedged
 - Seams trimmed, graded
- Only top collar is visible
 - Built-in roll prevents under collar from showing
 - Understitching holds the under collar in place
- Interfaced
- Enclosed seam is invisible on outside
 - Interfacing gives cushion between upper collar and seam allowance
 - Collar carefully pressed
- Same shape left to right
 - Curve of collar
 - Angle of collar points
 - Location in relation to center front or center back

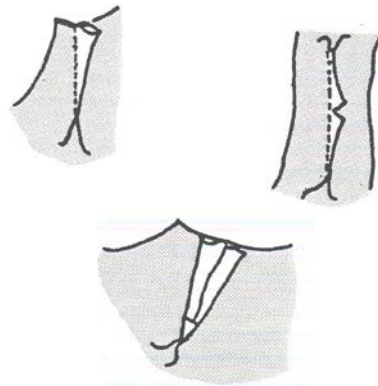


Cuffs

- Flat, smooth free from bulk
 - Enclosed seams trimmed and graded
 - Interfacing cushions seam allowance
- Interfaced
- Even in width
- Only top cuff is visible

Darts

- Tapered and smooth
 - Come to a tapered point
 - Free of puckers or bubble
- Securely fastened at end
- Appear as straight lines from outside of garment
- Evenly spaced, if in groups
- Matched from left or right side of body in shape and length
- Well pressed
 - Over rounded ham if intended for curved section of body
 - Vertical darts pressed toward center
 - Horizontal darts pressed down



Facings

- Flat, smooth, free from bulk
 - No pulling
 - No hand tacking visible on outside
- Not visible from outside
 - No visible hand stitches
 - No construction imprints pressed on outside

- Securely held in place
 - By understitching
 - By tacking only at seams and darts
- Enclosed seam
 - No wider than ¼”
 - Graded, clipped, or wedged
- Edge is secure, stable and free from raveling
 - May or may not require a finish
 - If finished, finish is flat, smooth, free from bulk

Fitting

The purpose of fitting is to hold flat cloth pieces to a curving body and allow the garment to be comfortable and attractive. Good fit is based on five factors: Grain, Line, Ease, Balance and Overall smoothness and freedom from wrinkles.

Grain

- Length-wise grain is perpendicular to the floor
- Cross-wise grain is parallel to the floor
- Grain-line on right half of garment matches grainline on left half of garment

Line

- Silhouette lines on garment follow silhouette lines on the body
 - Shoulder seams are on top of shoulder
 - Vertical seams fall perpendicular to the floor
 - Vertical side seams cut body in half
- Circumference lines follow body circumference—neckline, waistline and armhole
- Darts point toward and stop short of fullest part of the are they shape
- Hem is parallel to the floor

Ease

- Adequate ease for comfort
- Correct amount of ease for smoothness
 - Neither too loose nor too tight
 - Wrinkles which pull and draw indicate too little ease
 - Wrinkles that lie in folds indicate too much ease

Balance

- From right to left
- From top to bottom
- From front to back

Overall Smoothness and Freedom from wrinkles

- Smooth on the body
- Free from wrinkles
- Enhances appearance of wearer
- Good design on wearer
 - Line
 - Color
 - Texture
 -

For Example ---Sleeves

Grain

- Cross-wise grainline parallel to floor above the elbow
- Length-wise grainline perpendicular o the floor above the elbow

Line

- Sleeve cap rests at end of shoulder
- Curve of armhole is smooth and gradual

Ease

- Sleeve has adequate room for upper arm
- Sleeve is smooth and free from wrinkles
 - Diagonal wrinkles pointing to the cap indicate needed length

- Cross-wise folds at the under arm indicate needed room
- Long sleeve has adequate length

Balance

- Short sleeve is balanced on the arm
 - Pokes neither forward nor back
 - Doesn't hug the arm
- Fullness is smooth and even
 - Not puffy or puckered
 - Fullness is even front and back

Overall smoothness and freedom from wrinkles

- Sleeve is eased into blouse, not the blouse eased into the sleeve

Gathers

- Uniform, evenly distributed; non are stitched so as to form pleats
- Full and attractive
 - Not pressed flat
 - Adequate fullness so not to appear skimpy

Hems

- Free from bulk
 - Appropriate width for weight of fabric
 - Fullness reduced or controlled by easing or shrinking; free from pleating
 - Seams pressed open and graded
 - Seams clipped at edge of pleats
- Flat and smooth
 - If required, finished to prevent raveling; not all fabrics require a finish
 - If finished, finish does not add bulk or create a ridge
 - Free from pleats
 - Is only slightly larger than the area on which it rests

- Seams are matched
- Grain of hem matches that of garment for smoothness
- Inconspicuous; unless meant to be decorative
- Uniform in width
- If top stitched, stitching is uniform and corresponds with other top stitching on the garment
- Hand stitches are evenly spaced, secure, free from drawing and invisible on outside
- Fusing hems are acceptable
- Carefully pressed to avoid ridges
- Depth appropriate for fabric, style of garment, and size of individual
- Garment hangs evenly and gracefully
 - Uniform distance from the floor
 - Adequate width to suit present styles to provide weight to hang well

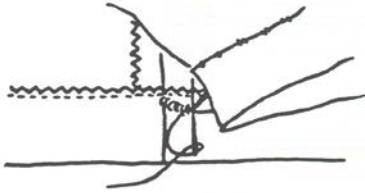
Interfacing

- Adds shape, body and support
 - Without bulk
 - Without changing the character of the fabric
- Enhances the hand of the fabric
- Color blends with color fabric or enhances it
- Serves as a cushion between the garment and the seam allowances
- Not visible; covered by the facing
- Free from raveling
- Interface seams and darts are treated to eliminate bulk

Lining

- Conceals the inner construction
- Color coordinated with fashion fabric
- Care coordinated with fashion fabric
- Fits smoothly inside the garment
- Has a neat, clean finish
- Lining and garment seamlines are aligned
- Allowance for body movement

- Vertical pleat in back lining and turns toward right side of body
- Folds at bottom of sleeve and at garment hem allow for ease
- A free hanging lining is attached to garment at hemline at seams with French tacks



Necklines

- Smooth, gradual curves; if called for in design
- Flat and free from bulk
- Interfaced
 - To prevent stretching
 - To provide stability
- Staystitched to prevent stretching

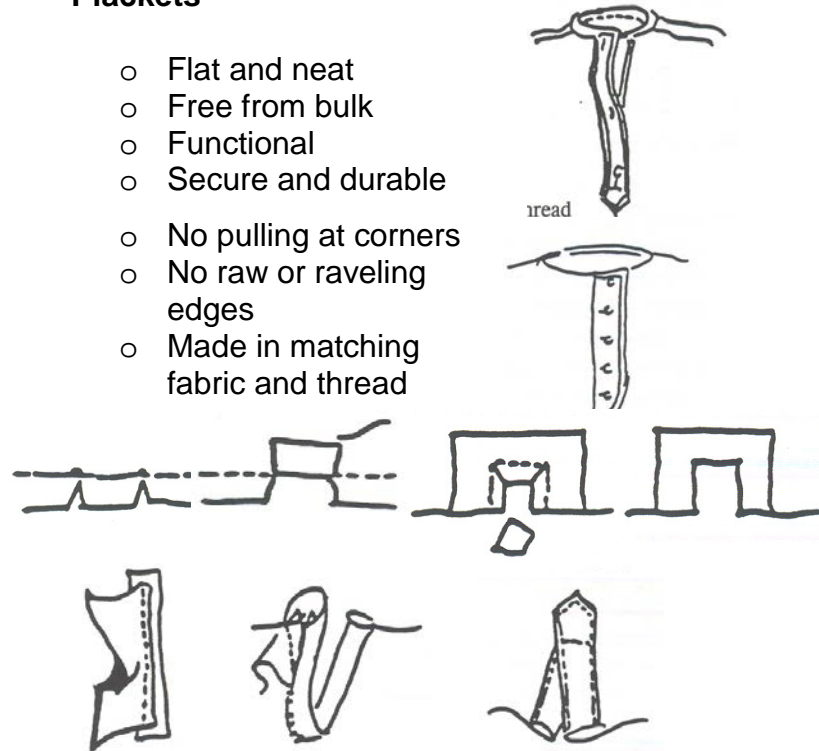


Needlework

- General standards to consider when needlework is used as design on garment:
 - Secure
 - Uniform
 - Flat and smooth; free from unwanted pulling
 - Correct technique used
 - Attractive
 - Enhances the garment

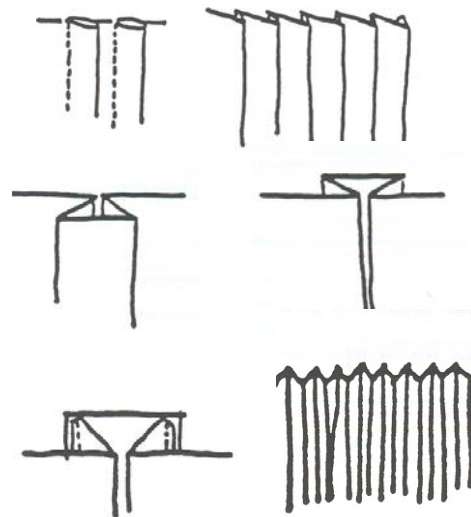
Plackets

- Flat and neat
- Free from bulk
- Functional
- Secure and durable
- No pulling at corners
- No raw or raveling edges
- Made in matching fabric and thread



Pleats, Tucks

- Uniform in width unless design requires variation in width
- On straight of grain
- Flat and pressed in one direction except on released tucks and unpressed pleats
- Free from pressed-in ridges
- Free from marks from basting, pins



Pockets

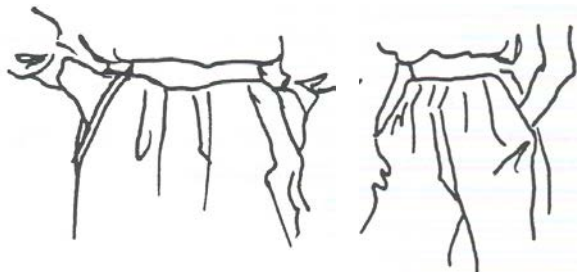
Patch Pockets

- Flat and smooth
- Decorative and attractive
- Even stitching
- Stitching suitable to fabric and garment design
- Hem in proportion to shape and size of pocket
- Upper corners are reinforced
- Square corners are mitered
- In pairs, the pockets are balanced and are uniform or coordinated in size and shape



In-Seam Pocket

- Not visible unless meant to be decorative
- Lies flat; does not gap
- Seam is reinforced to prevent stretching



Bound, Welt and Flap with Welt Pockets

- Flat, uniform, fabric around pocket not stretched
- Seams graded, corners trimmed, curves clipped and/or wedged to reduce bulk
- Even width welts
- Uniform corners, free from pulling or drawing
- Facing is securely stitched and pressed, free from bulk, does not show

- Stitching is secure, even and inconspicuous



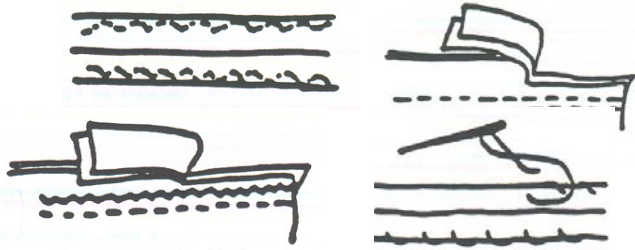
Pressing

- Garment surface is smooth and free from wrinkles
- Original appearance of the fabric has been maintained
 - No overpressing
 - No sheen
 - No flattened nap or pile
 - No imprints or construction details on outside of garment
 - No stretching or shrinking
 - No water spots
- Seams and darts are pressed smoothly on the stitching line; fabric does not fold over stitching line or look bubbled
- Garment areas pressed over curves where garment will fit over curves-shaping pressed in

Seams

- Good stitching
 - Balanced tension
 - Even stitch length
 - Uniform pressure
 - Matching color thread
 - Thread appropriate
 - Type of thread
 - Fiber
 - Free from runs or pulling
 - Reinforced at ends with back stitching or knotting
- Seam allowances are flat and smooth
 - Even in width
 - Free from bulk
 - Crossed seams are trimmed
 - Enclosed seams are trimmed and graded
 - Lie flat; curved seams are clipped or wedged

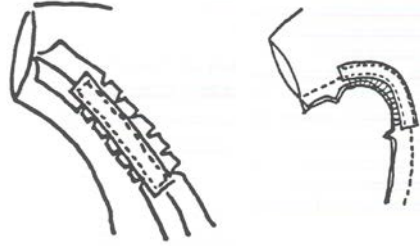
- Free from puckering
- Pressed open or in correct direction for purpose
- Free from raveling
 - Finished, if needed
 - Finish is flat, smooth and free from bulk
 - Finish prevents raveling
- Fullness eased and smooth
- Crossed seams meet
- Design patterns and plaids meet



Sleeves

- Smooth
 - Curve of arm hole is smooth and gradual
 - Nicely rounded car
 - Kimono sleeves
 - Free from drawing or pulling
 - Seam allowance clipped in underarm
 - Evenly eased in shoulder and upper arm
- Free from bulk; underarm seam allowance trimmed or clipped
- Fullness evenly distributed
 - Ease not puckered or puffy
 - Evenly distributed front and back ease
 - Gathers evenly distributed when gathering is intended in design
- Reinforced
 - Reinforced stitching in arm hole in area of strain
 - Kimono sleeve

- Reinforced with stay at under arm curve
- Gusset used
- Free from raveling; soft finish on seam allowance if needed to prevent raveling



Snaps, Hooks & Eyes, Other Fasteners

- Neat
 - Small even stitches
 - Buttonhole stitch nice, but not necessary
 - Finishing stitches do not show on right side of garment
- Secure
 - Are reinforced on wrong side—usually with interfacing
 - Hooks are usually placed 1/8" from edge of overlap so it will be –secure and lie flat, neck is sewn down
- Functional; correct placement of the two parts

Stitching

- Even and smooth
- Free from tangles
- Starts and finishes at ends of seams
- Length of stitch is appropriate for the fabric
- Stitches equal in length except where shortened for reinforcement
- Balanced tension

- Free from skipped or broken spots
- Thread ends are backstitched or knotted and clipped

Top Stitching

- Even stitches
- Balanced tension
- Provides an attractive decorative effect (see stitching)

Understitching

- Holds facing in place; neckline, cuff, collar
- Not visible on outside of garment
- Thread blends with fabric
- Done from right side through fabric layers of facing and seam allowances before seam allowances are trimmed, graded, clipped or notched

Waistbands

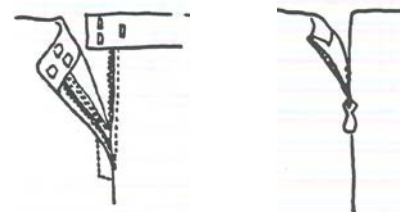
- Smooth, free from bulk
- Uniform in width
- On-grain
- Interfaced
- Overlap flush with placket; underlap extends beyond the placket and under the band
- Turned completely
 - Corners are square
 - Tab comes to a point
- Skirt or pants eased onto band



- Stay can be woven seam binding, twill tape, or grosgrain ribbon
- Underneath band extends for fasteners; upper band is even with zipper closing

Zippers

- Placket, when closed, is flat and smooth
 - Free from puckering
 - Zipper does not buckle or poke
- Tape does not show, unless part of design
- Stitching is straight and even
- Placket is open to end of zipper teeth unless zipper has been shortened; then chain or coil is securely held with several stitches
- Correct length to be useful
- Slides easily and does not hang
- Compatible weight with fabric
- Horizontal seams meet across the placket opening
- Space has been allowed at back zipper for hook and eye, snap or other fastener to relieve strain on zipper



Waistline Seams

- Inconspicuous, smooth and flat
- All seams and details finished and pressed before waistline was stitched
- Secured with a waistline stay
 - Adds reinforcement
 - Prevents stretching

Judging Recycled Garments

Things to remember:

- Recycled garments started with worn clothing; fabric should be worth the time and effort needed to construct a new garment.

Recommend simple designs and quick garments.

- Some jeans garments won't have seam finishes due to thickness and firmness of the denim. It is too thick for most home sewing machines to sew through in some cases. Hand sewing may be used in some areas.
- Same techniques apply to recycle knits as for knit construction, i.e., one turn over and top stitch for edges. Recommend eliminating bulk and achieving finished look.
- Compatible fabrics should be used if combining two fabrics in one garment.
- *Use your head---think!* Common sense is a good guide.



Finishes and Techniques

Hems

Appearance

- flat, smooth, inconspicuous from right side unless decorative

Ease

- fullness in flared hem controlled with ease and shrinking

Hand-stitching

- even, secure, free from drawing, inconspicuous
- single thread used
- stitches about 3/8" apart

Pressing

- upper hem edge should not imprint or cause ridge on outer garments

Seams

- matched

Topstitching

- Uniform, corresponds with other topstitching on garment
- Appropriate for garment

Width

- Uniform
- Appropriate for fabric, style
- Provides enough weight to make garment hang well

Edge Finishes

Unfinished

- Appropriate for knit fabrics that do not ravel
- Finished with catch stitch or fusible web

Edge-stitched

- Appropriate for fabrics that ravel little
- Machine stitching 1/4" from edge
- Finished with catch or blind stitch or fusible web

Turned and stitched

- Appropriate on lightweight fabrics with relatively straight design
- Hem edge turned under 1/4"
- Finished with catch, blind or slip stitch

Seam binding

- Appropriate for all fabrics, especially those that ravel easily
- Binding compatible with fashion fabric and durable
- Overlaps hem edge by 1/4"
- Finished with blind or catch stitch

Hong Kong

- Appropriate for garments with relatively straight lines and interlined garments, provides bound edge
- Binding compatible with fashion fabric, straight and even application, finished with slip or catch stitch

Faced

- Appropriate for use with bulky fabrics, if fabric is insufficient, as decorative effect, or to stiffen

- Appropriate facing material used
- Facing ends joined smoothly and without bulk
- Finished with slip stitch

Seam covering

- A nylon net available in 5/8-1 ¼" wide which covers the edge of a seam is stitched on with straight or zig zag stitches

Types of Stitches

Blindstitch

- Particularly suitable for medium and heavy weight fabrics
- Top edge of hem folded back and stitching done ¼" from edge
- Also called "tailor's hem"

Catchstitch

- Particularly suitable for knit fabric because it stretches
- Upper and lower rows of stitches are same distance apart
- Thread slightly loose

Slipstitch

- Desirable when stitching should be invisible from both sides of garment
- Stitches evenly spaced

Topstitched

- Appropriate on narrow hems in sporty garments or as design detail when appropriate to fabric
- Appropriate thread, stitched length and stitch pattern used
- Stitching straight, flat and even

Machine blindstitch

- Appropriate for straight or very slightly flared garments of medium weight fabrics
- Only single thread of right side of garment caught by offset machine stitch
- Stitching straight and even

Special Hems

Fused

- Appropriate on garments with relatively straightlines or narrow hem if very flared

- Inconspicuous on right side of garment
- Avoid on garments that may be dried at very high temperatures

Lettuce leaf

- Appropriate only on stretch knits that do not run
- Decorative
- Hem allowance trimmed to 3/8" and turned to wrong side, stitched with medium zig-zag, fabric stretched enough to produce desired curl

Rolled

- Appropriate for sheer fabrics
- Finished width no more than ¼", preferable 1/8"



Seams

Appearance

- Flat and smooth, whether straight or curved
- Free from runs, pulls and puckers

Bulk

- Seams graded
- Corners trimmed
- Curves clipped and/or wedged

Finish

- Appropriate for fabric and style of garment (see seam finishes)

Fullness

- Eased and smooth (as in sleeves, princess seam)

Placement

- Crossed seams meet

Pressing

- Open in correct direction for purpose

Pressure

- Uniform

Reinforced

- At ends with backstitching or knotting

Stitch length

- Uniform, appropriate to fabric and purpose

Tension

- Balanced

Thread

- Appropriate type and fiber, matching color unless decorative

Width

- Seam allowance even

Types of Seams

Topstitched

- Used on garments where tailored or sporty look is appropriate
- Flat and smooth, stitching is straight and even
- Stitch length appropriate

French

- Appropriate for sheer fabric
- Should not be used on curved seams
- Finished seam allowance no wider than ¼"

Mock French

- Appropriate for lightweight fabrics
- Not as easy to do on curved seams
- Finished seam allowance even

Flat-Felled

- Used on garment where tailored or sporty look is appropriate
- difficult on curved seams
- Finished seam no wider than 3/8"
- Finished from right side of garment, seam width even, stitching
- Straight and even

Welt (Mock Flat-Felled)

- Used on garments where tailored or sporty look is appropriate
- Under seam allowance trimmed to ¼", stitching straight and even

Slot

- Appropriate as decorative effect with medium to heavy weight fabric
- Underlay strip of matching or coordinating fabric, slightly wider

than both seam allowances, centered under seams of garment

- Topstitching even distance from edge

Seam Finishes

Appearance

- Flat, smooth, no raveling

Appropriate

- Use only when necessary
- Fabrics that are firm do not ravel do not need to be finished
- Finished according to fabric, design and use of garments

Finishes

Unfinished

- For fabrics that do not ravel (usually only stable knits and bonded fabrics)

Pinked

- Provides a decorative effect
- Not always a functional seam finish as it sometimes ravel, particularly if garment is laundered frequently
- Could be strengthened with one row of stitching

Edge-stitched

- For fabric with slight degree of raveling
- Stitching is straight and even, 1/8" to ¼" from edge

Zig-Zag

- Desirable for many fabrics
- On plain seams overcast edge seam allowance using stitch size appropriate to weight of fabric
- On sheer and open fabrics stitch both seam allowances together with a small stitch close to seam line and trim close to zig-zag

Hand overcast

- Diagonal even
- Stitches using single thread, not drawn tight

Clean finish

- Satisfactory for light weight fabrics
- Stitch 1/8" from the raw edge, turn under on stitching line and stitch again, close to edge

Double-stitched

- Appropriate for sheer fabrics
- Second row of stitching 1/8" from seam line straight and even, trimmed close to second row of stitching

Bound

- Appropriate for unlined jacket or coat, often used with bulky, heavy fabrics (especially those that ravel easily, such as heavy woven woolen coat or suit fabric)
- Binding appropriate for fashion fabric, stitching straight and even

Hong Kong

- Appropriate as a special technique for a custom look in garments
- Binding appropriate for fashion fabric, stitching straight and even

Seared

- Appropriate for nylon and/or polyester fabrics that ravel badly, such as taffeta, ripstop and chambray
- "melting" should be at very edge, invisible, and done evenly

Selvages

Treatment

- On fabrics that shrink, clipped through every 5" – 6" to prevent drawing









Uses

- Seam finish on straight seams
- Apron ties and sides of apron
- Hem finish (i.e. border prints)

- Inside edge of waist band to eliminate bulk

Glossary of Terms

The following terms are used in sewing. Many are similar, others may be unfamiliar. These brief definitions may be helpful.

Term	Where	Definition	Purpose	Illustration
Clip	Inside curve	To cut perpendicular through seam allowance to regular intervals, close to but not through line of stitching.	Allow seam allowance to lie flat.	
Clip	Inside corner	To cut through an angle in a seam allowance, close to but not through the point of the corner formed by the line of stitching	Allow seam allowance to lie flat	
Wedge (or notch)	Outside curve	To snip out small wedge shaped bits of fabric in the seam allowance, close to but not through the line of stitching	Eliminate bulk	
Trim	Outside corner	To cut off the corner of the seam allowance, close to but no through the point of the corner formed by the line of stitching	Eliminate bulk	
Trim	Seams	To cut a seam allowance to a narrower width	Eliminate bulk	
Grade	Seams	To cut seam allowances in graduated widths	Eliminate bulk, eliminate ridge from showing on right side	
Understitching	Facings	To trim the facing seam allowance, grade the facing and garment seams if needed, press both toward the facing and stitch both seam allowances and the facing close to the seamline on the facing	Prevent facing from rolling to right side	
Sear	Seam edge	To slightly melt the cut edge of a nylon or polyester fabric that raveling badly such as taffeta, ripstop or chambray by running it through a candle flame or heating the edge with a soldering iron	Prevent raveling	
Serge	Seam edge	By machine, apply many stitches to cover the edge of seam allowance	Prevent raveling	