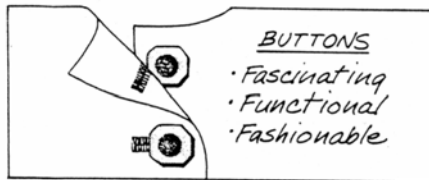


BUTTONS & BUTTONHOLES

BUTTONS

Buttons can be fascinating, functional, and fashionable. They are fascinating because of their many sizes, shapes, colors, and designs. They are functional because they are one of the major methods of opening and closing garments. Buttons are fashionable because they also decorate and enhance apparel & other items.



History

The term is from the French word, *bouton*, meaning a round object. Since the 13th century, buttons have been used as fasteners. Before that, they were used more for their decorative and symbolic value.

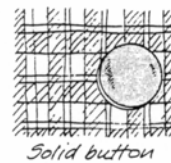
Today, buttons continue to be used as decoration, but their placement once served a useful purpose. For instance buttons on the back of men's coats served as a way to fasten coat tails up out of the way when riding on horseback. During Frederick the Great's reign, it was customary for three buttons to be used on the sleeve of a coat; some say this was to keep sentries from rubbing their cuff across their nose. King Edward VII started the custom of unbuttoning the last vest button after a large meal.

Traditionally, men's garments button left over right. However, at one time, both men's and women's wear had buttons on the left. During the Middle Ages, men's buttons were changed to the right to enable one to open the coat with the left hand and draw their sword from across the left hip with the right hand.

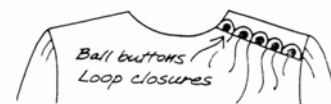
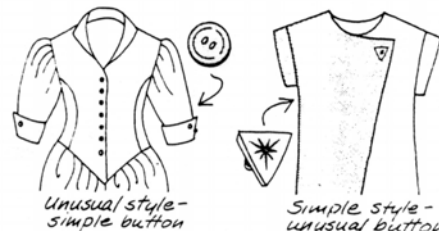
Selection

Button selection depends on the type and style of the garment. Buttons should be selected **BEFORE** making buttonholes or button loops. Consider the following when making your selection:

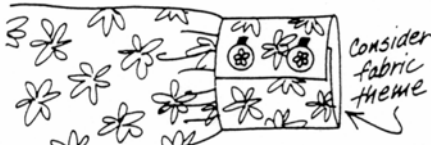
- The pattern will have a suggested size which was determined as the pattern was being made. If the button size is changed, so must the size of the button and buttonhole placket.
- Weight of fabric – Heavy fabric needs heavier and larger buttons; lighter fabric needs lighter and smaller buttons.
- Fabric design – Buttons can blend with the fabric OR they can call attention to the area. To call attention to the area use solid colored buttons on prints and patterned buttons on solid color fabrics.



- Use a smooth, flat-textured button on smooth textured fabrics. Shiny buttons are best on decorative, shiny fabrics.
- Garment style – Buttons should compliment the garment style and design lines of the pattern.



- Care – if washable or drycleanable, select buttons that require the same care as the completed garment.
- Coordinate buttons with the type of fabric. For example, pick up a color or theme from the fabric (flower with flower, heart with heart).

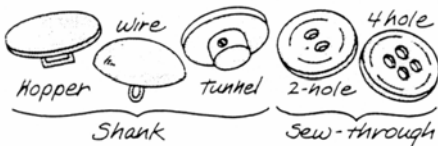


- Match or contrast buttons to the fabric. You can be creative by selecting contrasting buttons.
- If at all possible, use an odd number since this is more interesting than an even number.
- Generally speaking, if you cannot match the button color, select a slightly darker color.

Styles

There are a variety of button styles such as:

- see-through
- fabric covered
- ball and half ball dome
- irregular shapes and sizes



Buttons can be made of plastic, metal, wood, leather, glass, and other natural materials. They can have designs that are stamped into the surface or onto the button. Buttons designed to be covered with fabric to match the garment are generally made of metal or plastic. They may need to be lined when a sheer fabric is used. Some fabrics may be backed with a fusible interfacing to control raveling.



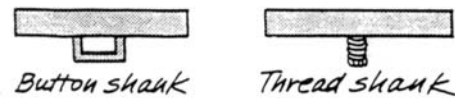
Standards

Well constructed buttons and buttonholes should:

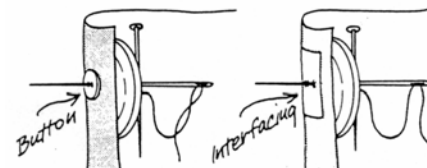
- Be neat in appearance on the right and wrong side of the garment.
- Hold the garment securely and properly closed without strain or stress.

Buttons should:

- Fit the purpose for which they are intended – functional or decorative.
- Be securely fastened with double thread and neat stitches.
- Have a shank (thread and/or as part of the button) to accommodate the fabric thickness when closure is fastened. The button should rest just above the buttonhole when fastened.



- Be reinforced, according to their use and the fabric type, with interfacing and/or another button.



- Be spaced, in good proportion, between the two ends of the opening.
- Be spaced in good proportion and in relationship to the other buttons.
- Be positioned on the center opening line and in correct relationship to the placket.
- Be the appropriate size and style for garment design and the fabric.
- Have no rough edges.
- Be smooth when covered with fabric and have “no-shine” or off-color visible from the base.

The placket should be smooth and flat; no gaping or pulling when buttons are secured in the buttonholes.

Covering Buttons

In certain situations, a covered button is the button of choice. Covered buttons lend a very tailored and/or expensive look to a suit, dress or gown. Sometimes the right button color or texture cannot be found. Thus, covered buttons can and do fit the closure need.

When covering buttons, they must be neat and well constructed. Kits are available with directions. However, here are some hints:

- If a washable fabric is being used, dampen the fabric slightly after it has been cut from the pattern. The fabric will be easier to handle and mold to the button form.
- When using sheer or lightweight fabrics; fuse fabric to a lining before covering the button. This will give it a bit more body and prevent the form from showing through when covered.

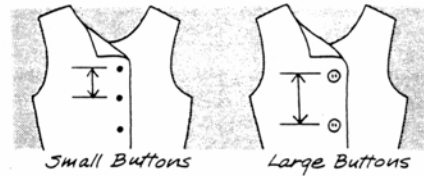
Placement

Patterns are designed for a specific button size that is stated on the back of the pattern envelope under "Notions". The button/buttonhole placket and the center line mark have been specifically designed with this size in mind. If a different size button is used, adjustments must be made to the placket before the garment is cut in order to maintain the proper fit of the garment. Unless you are an experienced sewer and understand how this is done, use the size button recommended on the pattern.

Buttons are placed in accordance with the buttonhole. Buttonholes must be made before buttons are attached to the garment.

- Buttons are sewn **on** the center line marking (center front, center back, cuff, etc.) as indicated on the pattern.

- Smaller buttons are generally placed closer together while larger buttons may be spaced further apart.



Sewing

Buttons are one of the last items to be sewn to the garment. They are applied after the buttonholes or loops have been made or attached. Here are some other considerations:

- Pulling the hand sewing thread through beeswax before starting helps prevent tangles when hand sewing.
- Use topstitching, buttonhole thread, or carpet thread to sew on buttons, especially on heavier fabrics.
- If the holes in flat buttons are large enough, tie the button to the garment using narrow ribbon or cord. This is recommended if using buttons that must be removed before cleaning.
- Sew flat four-hole buttons in a decorative stitching pattern such as X, □, or tulip formation.
- All functional buttons must have a shank. The shank length (real and/or thread) should measure the thickness of the fabric layers through which it will be buttoned. *The button sits above the fabric; a thin shank can fit in the buttonhole.* (Figure 1)



Figure 1

When the button is for decoration *only*, sew it to the garment flat—no shank.

- Catch only a thread or two of the facing. Do not sew the button all the way through the facing.
- Hide the knot and securing threads under the button OR between the fabric layers. (Figure 2)

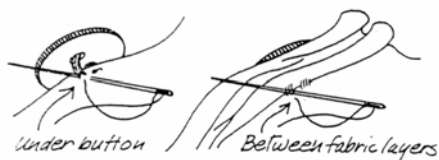


Figure 2

By Hand - Buttons without built-on shank

Use a double strand of either all-purpose, topstitching, or buttonhole thread. Begin on the center line marking.

Step 1 - Secure beginning thread with a knot or a couple of stitches between the folds of fabric. Hide the knot or clip any loose threads that may show.

Step 2 - Bring the thread up to the right side of the fabric and through a hole in the button. Thread it back through an adjacent hole.

Step 3 - Pull the thread allowing for a sufficient thread shank (use toothpick, shank gauge, pin, or leave give) between the button and the fabric.

Step 4 - Go into the first layer of fabric and the interfacing, picking up several threads of the facing. Slant needle toward the same general location where thread came up through the fabric to the right side. (This will help create a “thin” rather than thick thread shank.)

Step 5 - Continue stitching in the same place for approximately 6 stitches. (Figure 3)

Step 6 - If a toothpick, shank gauge, or pin was used to form the thread shank, remove it, and pull the button to the top of the thread. Wind thread around the stitches under the button. (Figure 3) Secure thread at the bottom of the thread stem.

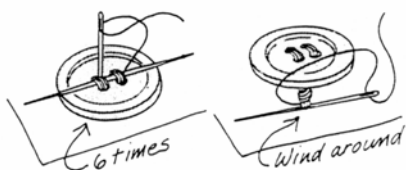


Figure 3

By Hand – Buttons with built-on shank

Buttons with a shank vary by size and thickness of the shank. Buttons with thick or large built-on shanks require additional thread

shanks to prevent the built-on shanks from stretching (springing) the buttonhole. The purpose of a button shank is to raise the button above and through the hole so that it sits above the buttonhole. *Button shanks –built-on or thread–must be small and thin.* If a longer shank is needed, add an object or provide some “give” in the thread as the button is being stitched to the garment. Stitch through the fabric, interfacing and button shank 6 times. Secure as you do a button without a build-on shank–see directions above.

By Machine – Buttons without built-on shank

Some sewing machines may be equipped to sew on 2- or 4-hole buttons. Check the sewing machine manual for specific information and directions. Remember that functional buttons require a shank. Therefore, make provisions to sew over “an object” to make the needed shank.

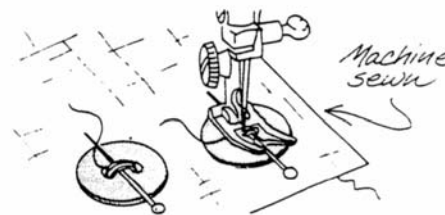


Figure 4

BUTTONHOLES

Buttonholes are companions to buttons when a button and buttonhole closure is the desired method to open and close a garment. Their size, shape, and placement depend on the button. Therefore, buttons must be purchased before any consideration can be given to the buttonholes.

Buttons must be purchased before buttonholes can be made.

Standards

In addition to the standards previously listed for both buttons and buttonholes, the following apply.

Well-constructed buttonholes should be:

- Flat and attractive.
- Made with the grain of the fabric, unless a bias-cut garment or unusual design dictates otherwise.
- An equal distance from the garment edge and in conjunction with the center line or lap line.
- Sized according to the button size, button thickness and the fabric thickness.
- The same length and width throughout the area.

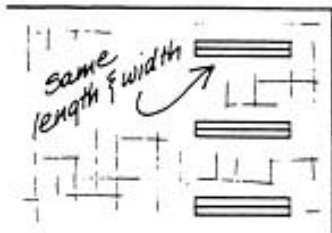


Figure 5

- Spaced according to the size of the button and the garment design/function.
- Applied to an area that has been properly interfaced.
- Positioned so the button in a *horizontal* buttonhole can be secured and will ride slightly toward the garment edge.
- Positioned so the button in a *vertical* buttonhole can be secured and will ride toward the top of the buttonhole.
- Neatly slashed and unsightly threads removed.
- Made with secure stitching; and,
- Have uniform “lips” or edges throughout.

Types /Forms

Buttonholes can take many forms. The design of the *garment* and the *fabric* help determine the type of buttonhole to use.

Machine-worked – a thread-lipped

buttonhole made on the sewing machine with a special attachment or a built-in pattern on the machine that must be selected.

Hand-worked - a thread-lipped buttonhole made by hand or first worked on the machine and then finished with hand stitching.

In-seam - used when the garment design has an appropriate seam that can be left open (unstitched) to accommodate the button.

Loops - cord or small fabric strips used with buttons to connect garment pieces. They are frequently used with ball and dome-shaped buttons.

Bound - a fabric-lipped buttonhole used in tailored garments.

For additional information and publications, talk with your local county agent.

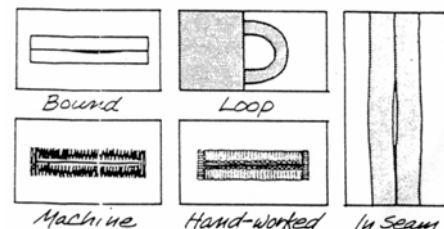


Figure 6

Buttonholes are not made until the buttons have been selected and carefully measured.

Regardless of the type of buttonhole to be used, it is a good idea to make one or more samples. Samples are made to check the:

- Suitability to the fabric.
- Suitability and color of the thread (machine-worked).
- Size of the buttonhole in relation to the button.
- Skill of the sewer, and to perfect the technique if necessary!

The sample buttonhole should always be made using the same fabric, interfacing fabric and thread that will be used on the garment.

Duplicate the garment area as closely as possible.

Hint: Save and use the sample test piece used to determine the most suitable interfacing fabric. Be sure to use the correct sample—as you may have tested several interfacing fabrics before selecting the most suitable one.

Placement

There are several points to consider in the placement of buttonholes.

- Try on the garment, with the belt to be worn with it, and mark the placement of the first three buttonholes (greatest amount of stress, top edge, and from the waistline/belt).
- Use horizontal buttonholes when a garment fits closer to the body. Horizontal buttons withstand stress better than vertical buttonholes. (Figure 7)

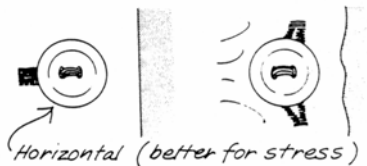


Figure 7

- Buttonholes are usually placed on the right front of women's garments and the left front of men's. If buttons are placed on the left back of the garment, placement will vary according to the design.

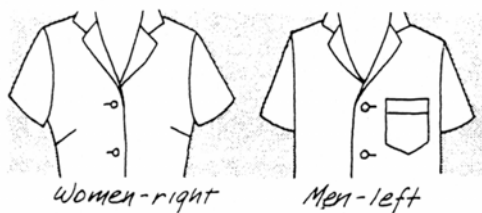


Figure 8

- Spacing is determined by stress points, size of button, and the design of the fabric (such as plaid, stripe, or flower).



Figure 9

- Begin placement with the button/buttonhole at the greatest amount of stress; i.e., bustline, shoulder blade, etc. (Figure 9)
- The distance from the neckline to the buttonhole should equal the diameter of the button plus 1/4-inch.
- Space the buttonhole the same distance from the waistline/top of the belt as the space between the other buttonholes.
- For full-length button/buttonhole plackets, refer to the pattern. Generally, the bottom button should be at least 4 to 5 inches above the hemline.
- Vertical buttonholes are worked on the center line marking.

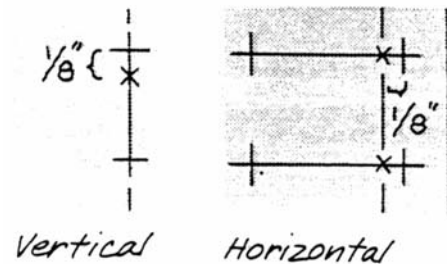


Figure 10

- Horizontal buttonholes begin 1/8-inch out in the overlap beyond the center marking and extend back into the body of the garment.
- The maximum distance for small buttons and the minimum distance for large buttons to the front edge of the garment is 1/4-inch. Half of the diameter of the button is standard for medium and large buttons. (Figure 11)

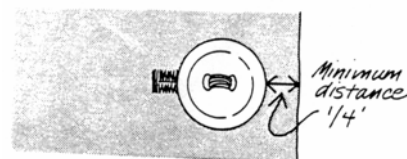


Figure 11

Determining Size

The size of the buttonhole for most buttons is determined by measuring the diameter of the button, plus the button thickness, plus $\frac{1}{8}$ -inch.

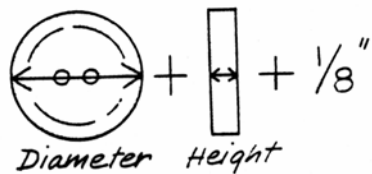


Figure 12

Some exceptions to this formula are:

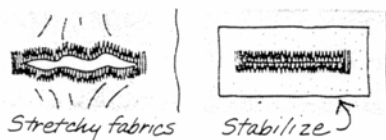
1. Very small buttons where less length is needed.
2. Dome or round buttons. To determine buttonhole size for a ball button, place a string around the button, remove, and fold in half.
3. Fabric-covered buttons of heavy fabrics where more length is needed. To save wear and tear on buttonholes, they need to be large enough for buttons to slip through, but small enough to prevent unbuttoning during wear.

Interfacing

Both the buttonhole and button areas of the garment should be interfaced to stabilize the fabric and to prevent stretching.

In some situations it may be necessary to further stabilize or protect the area where buttonholes are to be placed. For example, very stretchy fabrics need to be stabilized so the fabric will not stretch when machine-worked buttonholes are required.

Figure 13



Marking

There are several methods of transferring buttonhole markings to the garment. Use the one most suited to the fabric.

- Basting stitches (hand or machine) to show where to begin, end, as well as the placement of the buttonhole.
- Transparent tape to mark where to begin, end, and where to place the buttonhole.
- Fabric marking pen (washable - be sure to check on a fabric scrap).
- Pins.
- Soap slivers on washable fabric.

Be sure the markings are on-grain. Mark appropriately for horizontal or vertical buttonholes.

Making a sample is an important step to insure the appropriate length of the buttonhole.

Sewing – Machine-worked Buttonholes

When making a machine or hand-worked buttonhole, the garment should be finished. The last two steps are the buttonholes and buttons.

Refer to your sewing machine manual for specific directions on how buttonholes can be made by your machine. It may be necessary to protect the fabric when slipping it in and out from under the presser foot or buttonhole attachment.

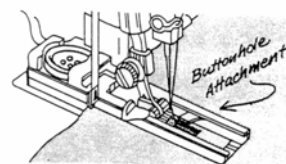


Figure 14

Consider using tissue pattern on top of and/or underneath the fabric. The tissue can be easily torn away from the stitching area.

Thread-worked buttonholes can be one of three shapes: *rectangular*, *oval*, or *keyhole*. All three of these can be made by hand. Not all machines or machine attachments will offer all three shapes.

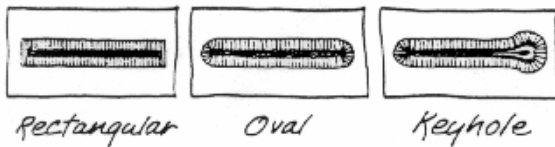


Figure 15

The keyhole makes provision for a larger shank. However, this buttonhole is not appropriate for all types of garments. It is especially recommended for coats, jackets, and heavy-duty use.

HINT: *Stitching around the buttonhole twice may be necessary for strength and sufficient thread coverage.*

Corded Buttonholes

Sometimes raised lips on a buttonhole are desirable. The addition of a small cord (held so the stitching covers the cord) provides strength, durability, style, and prevents buttonhole lips from stretching out of shape. Follow your sewing machine directions for applying.

Slashing Open Machine-worked Buttonholes

Machine-worked buttonholes must be cut open after they have been stitched. Take a great deal of care when cutting the buttonhole open. Use one of the following methods:

- A special buttonhole cutting device.
- A very sharp-pointed pair of small scissors.

It is further recommended that you do the following:

- Place pins at both ends of the buttonhole, when using a pair of sharp pointed scissors, cut to each pin.
- Place a pin in the middle of the buttonhole then cut with a seam ripper from each end to the middle. Finish up with a pair of scissors in the middle if necessary.

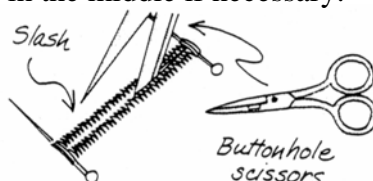


Figure 16

Occasionally it will be necessary to remove or rip out a buttonhole. Take your time and be very careful not to damage the fabric. If at all possible, work between the garment and facing as much as possible. (Figure 17)

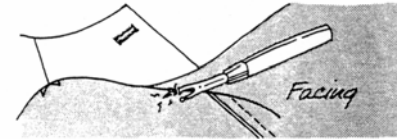


Figure 17

Always carefully trim away any excess threads from the opening. A small amount of liquid seam sealant around the lips will prevent further raveling.

When finished, carefully steam/press the area unless the fabric cannot be steamed/pressed.

Sewing - Hand-worked Buttonholes

Begin by stitching a small rectangle by machine, using a very short machine stitch (12 to 14 stitches per inch). The width of the rectangle should not be more than 1/4-inch (each lip is 1/8-inch wide). The buttonhole length is the same as for machine-worked buttonholes.

Carefully slash the opening through the center. Use a double strand of all-purpose thread or buttonhole thread for working the buttonhole stitch. Start and end stitching in one end of the buttonhole.

To do the buttonhole stitch:

1. Hide thread ends between the layers of fabric. Take a stitch and lock the thread.
2. Take a stitch in the lip, and wrap the thread around and underneath the needle forming a loop. (Figure 18)
3. Pull the stitch tight, making sure the tiny loop rests at the edge of the lip opening.
4. Continue around the opening.
5. Make stitches as close together as possible.

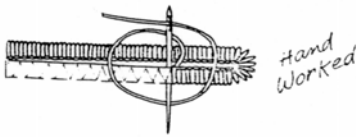


Figure 18

For more information on the buttonhole stitch, refer to **CT-MMB.002, *Hand Stitches***.

Constructing Buttonhole Loops

Loop closures are functional and decorative. They may be of self-fabric cording, fabric-covered cording, thread, trim, or purchased cording. If fabric-covered cording is to be made, follow these steps:

- Cut a bias strip the necessary width to cover the cording plus small seam allowances ($\frac{1}{8}$ -inch) and the desired length.
- Cut cording twice the desired length.
- Fold the right side of the fabric over the cord and stitch close to the cording using a zipper foot.
- Pull the fabric back over the remaining exposed cord.
- If self-fabric tubes are used, place the sewing machine thread or yarn close to the fabric fold. Stitch and then use thread/yarn to turn the fabric tube.

When loops are used, the pattern provides for an underlap extension, but there is no overlap or extension beyond the center front line. Loops are positioned along the center front before the facing is attached to the garment. The loops are caught in a seam and extend over to the adjacent garment piece where the buttons are positioned.

When positioning the cording it may be easier to bend and form each loop with a continuous length of cord instead of cutting individual lengths for each loop. After pinning the loops in place, stitch, and then add the facing.

SUMMARY

Buttons and buttonholes are easy fasteners to construct when you take the time to measure and check yourself by making a sample.

Prepared by Nadine Hackler, Associate Professor Extension Clothing Specialist. First Published: 1985 Revised December 1998. Permission to use granted by the Institute of Food & Agriculture Sciences, University of Florida, Gainesville, Florida.

Adapted for use in Kentucky by:
Linda Heaton, Ph.D., Extension Specialist for Clothing & Textiles
April 2004

Revised by:
Marjorie M. Baker, M.S.
Extension Associate for Clothing & Textiles
October 2006

Copyright © 2007 for materials developed by University of Kentucky Cooperative Extension. This publication may be reproduced in portions or its entirety for educational or nonprofit purposes only. Permitted users shall give credit to the author(s) and include this copyright notice.

Educational programs of the Kentucky Cooperative Extension serve all people regardless of race, color, age, sex, religion, disability, or origin.