

*TECHNIQUE BASICS*

**AN INTRODUCTORY PROGRAM**  
**TO SURFACE STITCHERY**

By

Judy Jeroy

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## **TECHNIQUE BASICS**

### **An Introductory Program in Surface Stitchery**

### **And Crewel Embroidery**

**By Judy Jeroy**

This program is designed to help you broaden your knowledge into areas of embroidery to which you may not previously have been exposed. For beginners it will offer the opportunity to meet the basic stitches worked in the proper manner. For long-time embroiderers there still may be a hint or tip that you never heard years ago.

Fundamental stitches are offered in this program as well as information on materials, threads, devices, and methods used by the author. Please try each stitch in different weights of wool and different types of threads. Only then will you feel comfortable with them. Are you ready to try sharp needles?

**AN EXPLANATION:** These Guidelines apply to surface stitchery as well as crewel embroidery. So, what is the difference between the two? The answer is the materials used for the work. Crewel embroidery is worked with two-ply twisted wool, usually on linen twill fabric. Surface stitchery uses the very same stitches but is worked with a variety of threads, synthetic and natural, and on any ground surface, not necessarily fabric.

"Embroidery" is the art of ornamenting textiles, fabrics, and other materials with needlework. It is a method of decorating by sewing on a finished piece of cloth, which differentiates it from ornamentation woven into the fabric. Embroidery can decorate a surface, create a pattern of holes in a fabric, or trim an edge with stitches. "Crewel" embroidery is a form of ornamental needlework that is done with wool on a closely woven ground fabric. The word "crewel" actually refers to the type of wool used: a worsted yarn of two twisted strands that can be fine or coarse spun. Like other forms of embroidery, crewel work has suffered from and been subjected to the whims of fashion, the tribulations of war, and the scarcity of time and materials. Interest in this art form, however, has never been wholly extinguished.

## Introduction to Tools and Materials

**FABRIC** - Linen twill has a very tight weave with a slight grain; it is harder, firmer, and more durable. It is the preferred fabric for crewel embroidery as it allows the greatest latitude for stitch placement. If your fabric has a tight weave with more threads per inch, you will be better able to control where your stitches will lie and, of course, the best control comes by piercing a thread. Twill has a definite right side, that of the most prominent twill ridges. This can be difficult to discern, however. Compare the two sides of the fabric and work on the side with the most prominent twill ridges. Surface stitchery can be worked on linen twill or other tightly woven cottons (such as denims), linens, and British satin, as all offer variations in texture and are suitable for crewel work. Edges of the fabric should be finished with machine stitching or by overcasting by hand.

**THREAD** - All wool thread has a nap, smooth and rough. Stitching with the smooth nap passing through the fabric on the grain allows the wool to lie more smoothly, with less wear on the yarn and fewer "hairs." To discover the nap of a piece of wool yarn, pass it through two fingers gently first in one direction and then the other. Doing this several times with the eyes closed enables you to discern the nap, however faint. Insert into the needle the end of thread that has the smooth nap. When stitching, use a piece of yarn not longer than 15-18". Do not re-use wool that has been used and picked out. One strand of yarn should be used for all stitches unless otherwise stated. When two strands are specified, use two lengths of yarn with the nap running in the same direction. Do not use one strand doubled over. Note: Use firm control when stitching with Appleton wools. The wool should not be fluffy when stitched but should not be so tight that fabric is puckered.

Types of thread: Appleton crewel wool is my preference for crewel embroidery; it has an extraordinary range of hues and values with some color families having up to 9 values. This wool has a very distinct hairy quality which discourages some but which makes it valuable when stitching long and short shading - the hairs blend well together. Appleton is packed in a "pull skein" so carefully find the cut end that emerges from within the bundle, not the end from the outside of the skein. Medicis wool in skeins is much more readily available at needlework stores. It is, however, a thinner thread, and it is more difficult to work long and short shading because of that quality. Beautiful crewel embroidery can be stitched with either thread. Other threads can be added to crewel embroidery but that changes it to "surface stitchery" because crewel (by its name) is only done with wool. Pearl cotton #8 and #5 are nice additions to surface stitchery as is stranded cotton and stranded silk. These firmer and/or thinner threads can be used effectively as a base for whipped spiders, in the centers of flowers, leaf motifs, and in tying down trellis stitches, if the stitcher should choose.

It is not the usual procedure to use multiple strands of thread when doing surface embroidery. It is far harder to control them than on canvas, and a lumpy effect can result. It is better to choose another weight of thread.

**NEEDLES** – The purpose of a needle is two-fold. First, it serves to guide the thread, which seems pretty obvious. Second, it opens a hole in the fabric of precisely the right size. The “right size” is large enough to create a hole which will permit the part of the thread within the eye to pass through the fabric with as little abrasion as possible. It is also small enough to close automatically when this part of the thread has passed through.

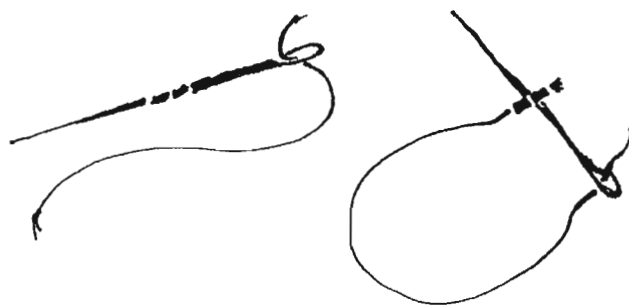
Needle size is a matter of personal preference. Try the one you think is right. If it is too large, the holes in the fabric will remain, and you may have to try to make the threads go back in place. If the hole is too small, your thread will wear away before it is used up. My personal choice are chenille needles which come in various sizes; the larger the number the smaller the needle. Usually #20, 22, 24, and 26 are used with crewel wools like Elsa Williams/Paternan Crewel, Appleton, and Medicis, respectively. The needle must be easy to thread and must make a hole in the fabric big enough so the yarn may pass through without undue stress. Some people prefer crewel needles which have a larger eye, making a larger hole in the fabric. Both are sharp but I prefer the chenille which has a long, narrow eye and I find it easier to thread.

To thread the needle, fold the thread over the needle a couple of inches from the end of the thread. Hold this loop between your thumb and index finger, remove the needle, and squeeze the thread between your fingers. Then push the eye of the needle over the loop of thread. By squeezing the thread you have held it in its smallest size; when you release it, it fluffs back up. Hopefully, this happens after you’ve pushed the needle eye over it. Don’t get frustrated – if it doesn’t work after a few tries, just use a needle threader.

**HOOPS AND FRAMES** - These keep the fabric smooth and taut while stitching. The finished work often will reflect poor tension and poor stitch placement when no hoop is used. However, there are certain line stitches which may be worked in the hand, such as outline, stem, and chain. Use a sewing motion rather than stab stitch when working in the hand. Using a standing hoop or table clamp will enable you to use both hands for thread handling and let you achieve a better result on some stitches, such as French knots and bullion knots. Metal hoops may leave a smudge mark on the fabric so use adjustable wooden or plastic hoops with a screw for tightening. Better made hoops have a screw with a slot for tightening by a screwdriver. My personal favorites are one each of 4”, 5” and 6” diameter. I also use a table clamp for the stitches that require both hands. I need the smaller hoops because I employ my left thumb for thread control [I am right-handed] when working many stitches. **Note: Always remove hoops whenever you leave your stitchery, as the fabric may be marred otherwise.**

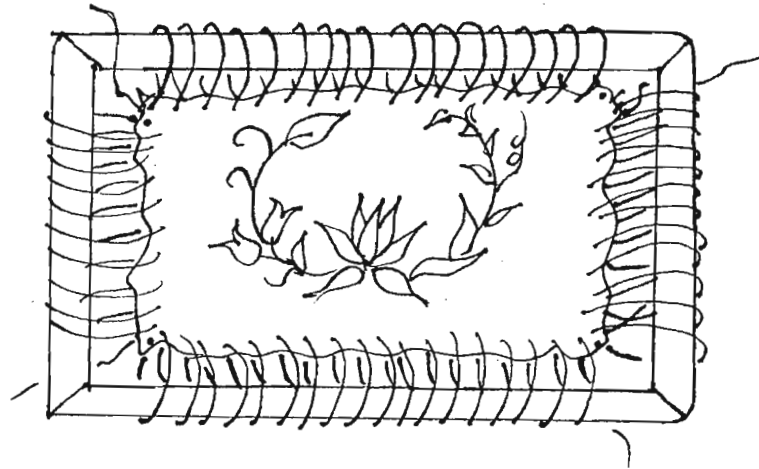
Do not be afraid to move your hoop and reposition it over your embroidery [except for knotted stitches.] If the work has been well done with no loose stitches, wool embroidery will not be disturbed by doing this.

**TYING-IN, ENDING OFF, AND CHANGING YARN** - Refrain from using knots when working crewel embroidery as they come undone, wear off, or leave lumps in the surface of your work. To tie-in, on the back of the work in a place which will be covered by embroidery on the surface, take a tiny stitch, catching a few threads of the back surface only and pull through leaving an 1/8" tail. Then take another stitch directly over this one but at a right angle, splitting the yarn of the first stitch. Do not depend upon catching wool within existing stitches as this will not hold. This should give a firm anchor with no noticeable bulge. When ending off, run needle through to back and catch several threads of the twill and take a few backstitches. Clip 1/8" from fabric. Change yarns when the wool becomes weary or excessively hairy (which may mean that you have threaded the needle against the grain or nap). **Note:** Refrain from carrying your thread from one element to another. It is better to end off and begin again at the new place than to carry over more than 1/4". You may "walk" your thread from one element to another by taking tiny running stitches within an area to be stitched (a stem, for instance) or by whipping around stitches already in place.



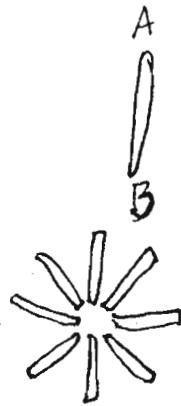
**TRANSFERRING DESIGN** - Working from either tracing paper or directly from the pattern, center the design on the fabric (right side up), secure the design paper to the fabric with a few pieces of masking tape to hold it steady, lift the design, and slip a piece of graphite carbon paper (obtainable at art supply stores) between the design and the fabric. Be careful not to slide the carbon as it may smudge. Tape the free side of the design paper down with masking tape, and with a blunt, hard pencil (or empty ballpoint pen) trace a few elements of the design. Lift design and graphite carbon paper carefully and check to see that the design is being transferred to the fabric, then finish tracing. An alternative method of transferring the design is to use a light box or window. With this method the design paper is taped to the light box or window and the fabric is placed over the centered design. Use a hard lead pencil to trace the pattern onto the fabric. Remember that **ALL** traced lines must be covered by embroidery. The tracing design purposely does not contain all details of the individual motifs.

WASHING, BLOCKING, AND FRAMING - If work is not dirty, it can be rinsed only after it has been laced onto wooden stretcher strips which are at least 2" larger all around the piece. Placing stitches one inch apart or closer, lace with quilting thread from center out (on all sides); tighten lacing before knotting it. Then simply run the laced embroidery under the cold water faucet for a rinse. Let the water drain off and thoroughly dry the wooden strips. Lay the embroidery, still laced to the stretcher strips, flat to dry for several days. If the work is soiled, lace it to stretcher strips and wash in tepid water filled with Ivory soap suds or Orvus®, by dunking it in suds (do not wring or twist). Rinse until you can drink the final water. When the work is dry, cut a piece of acid-free museum board to fit the frame, smoothing edges or covering with a piece of flannel. Center work on the museum board and lace tightly across the back using quilting thread. Do not cover the embroidery with glass when framing unless the piece is in area of high dust or dirt. Embroidery may be unlaced and washed as necessary.



## STITCHING

On the following pages you will find the basic stitches of surface embroidery [crewel or not]. Do try them all. Try them with a variety of threads. Work them in a straight line, in a wavy line and even in shapes. As you work them, make notes right on your papers or on the fabric about the threads you use and any other particulars you feel pertinent. You can draw lines on your fabric with your pencil, if that will help you.

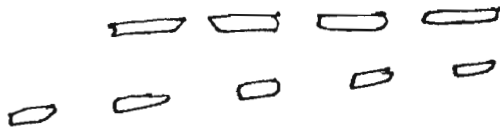


**STRAIGHT STITCHES – use hoop**

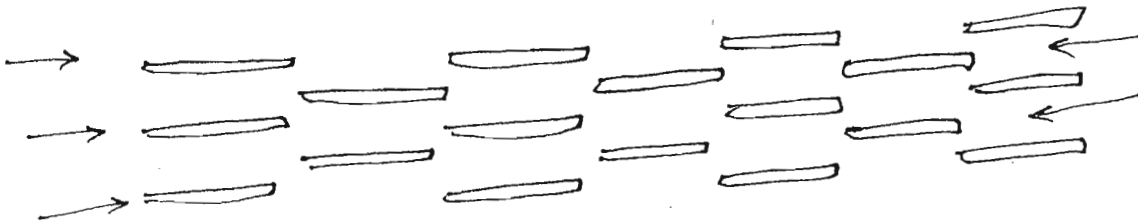
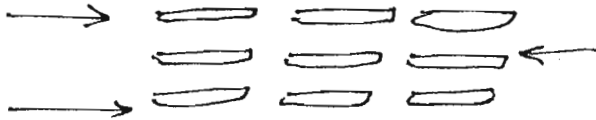
Tack your thread carefully so it does not show. Bring the needle to the top and take it to the back, forming a straight stitch. That's all there is to it but look what you can do with it!

Radiating stitches look like a star.

Random length stitches look like grass.



Many straight stitches in a row turn into *RUNNING STITCH*. All you have to do is go up and down through the fabric, keeping even, consistent spaces. Rows of running stitch, placed side by side, form *DARNING STITCH*. Some examples follow:





### ***OUTLINE - no hoop***

Working left to right in a sewing motion with the needle held directly on the stitching line, needle up at A, holding yarn up, put the needle down at B and up again at A. Pull through, yarn up over the needle. Down at C and up at B. Continue, keeping the yarn over the needle. The size of the stitch will vary with the size of the thread used; if using Appleton wool, make the stitches about 1/8" long. Control the thread by pulling it firmly; do not let it get lofty or loose. **Remember:** In the outline stitch, the yarn is held over the needle.

### ***WHIPPED OUTLINE - no hoop***

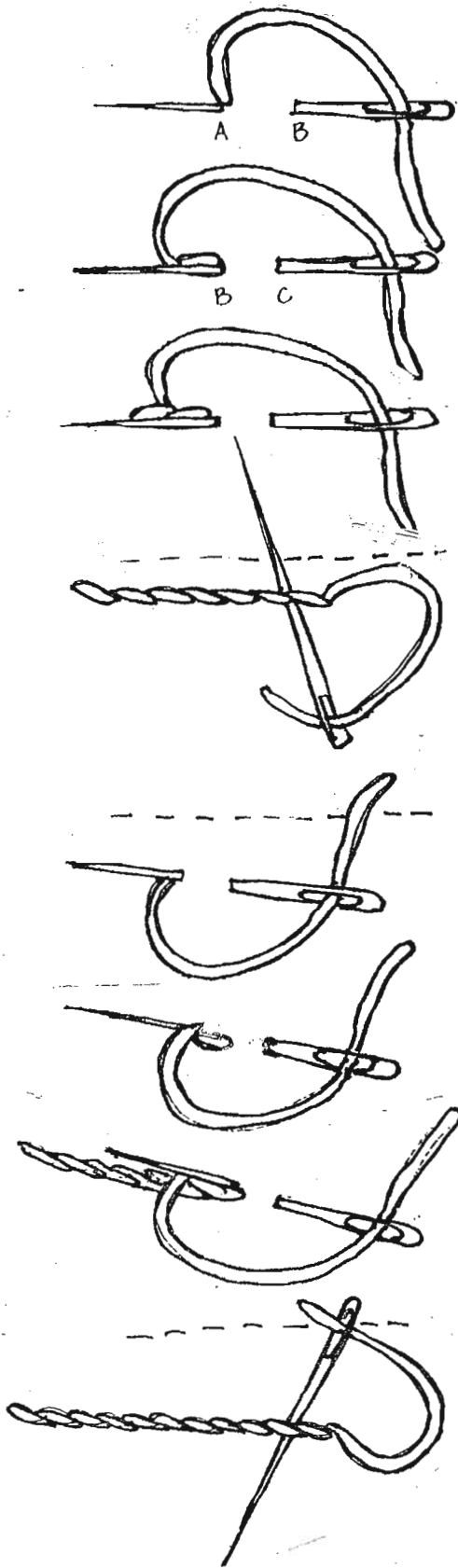
Slip the needle under the first half of one stitch and the second half of another. Needle whips from the opposite side from which the yarn was held. Note the slant of the needle. Do not pierce the fabric. Tug gently after every 3 or 4 stitches to tighten up the whipping thread. **Note:** It is appropriate to stitch the outline to the end of the line, take the needle to the back, and return to the front a few threads further. Then use the same thread to whip back to the beginning.

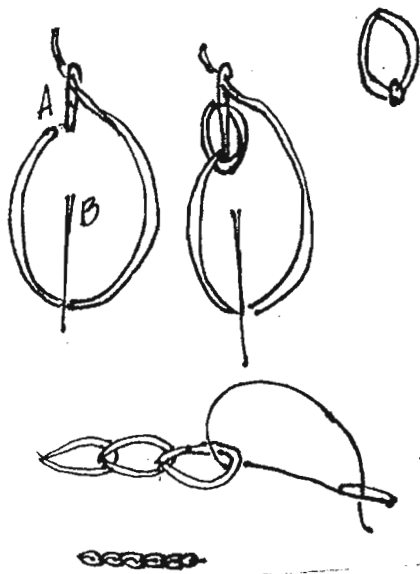
### ***STEM STITCH - no hoop***

Follow the directions for the outline stitch above, but hold the yarn below the line instead of above. This results in a more textured or corded line. **Remember:** In the stem stitch, the yarn is held below the needle.

### ***WHIPPED STEM - no hoop***

Follow the directions for whipped outline, but slant the needle from the opposite side. Do not pierce the fabric. Tug gently every 3 or 4 stitches to tighten. **Note:** It is appropriate to use the same thread for whipping as used for stitching. See above.



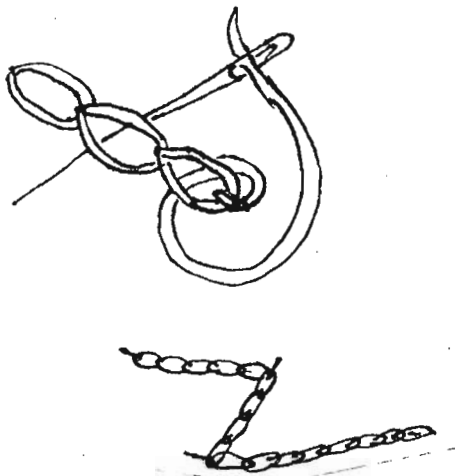


### *CHAIN STITCH - no hoop*

Bring needle up at A, pull through. Make a loop up and around to the left, holding thread with left thumb. Insert needle at A and bring out at B. Pull needle through loop and down towards you. Do not pull loop up too tightly.

Repeat step above, inserting needle at B, inside first loop, making sure needle is in same hole. Bring up at C, pull through. Continue in this manner. When line is complete, make a tack stitch at D to hold last loop down. [See the small example for correct stitch size.] There should be no fabric showing within loop.

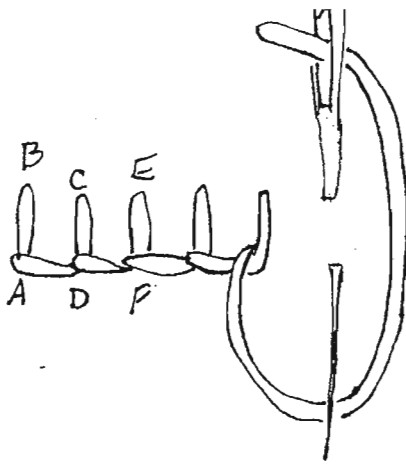
Note: When changing threads with any "linked" stitch, such as chain or buttonhole, there is a technique to avoid an obvious thread change. Before ending off the old thread, with a new needle, thread up a new thread and secure on the back. Bring the new needle and thread up where the next stitch would begin. Take the old needle and thread to the back around the new thread; hold on back until a few stitches have been taken with the new thread. Adjust tension of old thread and then secure on back and cut thread. Continue stitching with new thread.



### *WHIPPED CHAIN - no hoop*

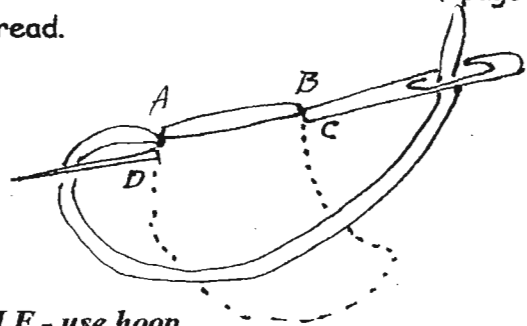
Put needle under both loops of last chain (after coming back to the surface close to the tack down.) Do not pierce fabric. Continue under both loops of each chain, whipping from one side only. Pull up **firmly** after every 3 or 4 stitches to tighten.

Note: When stitching sharp points using chain stitch, stitch to the point and take the needle to the back of the fabric, tacking the stitch down. Then come back to the surface bringing the needle up again at the same place that the tack stitch began. If you want a really sharp point, make the tack stitch rather long.



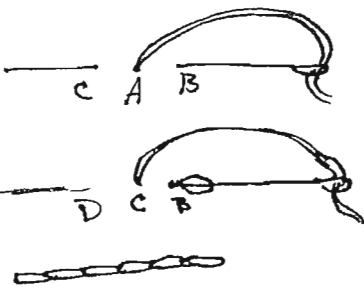
**OPEN BUTTONHOLE (BLANKET STITCH) use hoop**

Work a vertical straight stitch, A to B, to eliminate appearance of hook. Bring thread up again at A. Make a loop to the bottom of the line and hold with thumb. Insert needle at C and out at D, with thread beneath needle. End the stitch by tacking at the bottom to hold the loop in place. Note: Refer to note in middle of page 8 for hint on changing thread.



**CLOSED BUTTONHOLE - use hoop**

Work left to right with needle pointing toward your left arm (if right-handed; otherwise, reverse.) First straight stitch A-B is only to eliminate the "hook" the buttonhole stitch makes when first begun. Needle up at C and down at D, right beside first straight stitch, and up at E with yarn looped down under the needle. Repeat this step being careful to cover the fabric completely while not crowding the stitches. The looped edges of the stitch should form little "pearls" evenly on the edge. Note: Refer to note in middle of page 8 for hint on changing thread.

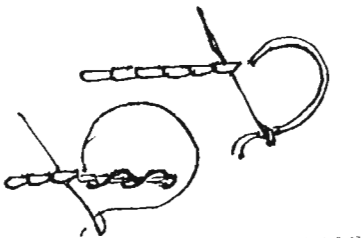


**BACKSTITCH - no hoop**

Needle up at A, down at B, and up again at C. Needle down again at A and up at D. Each stitch shares the hole of the previous stitch.

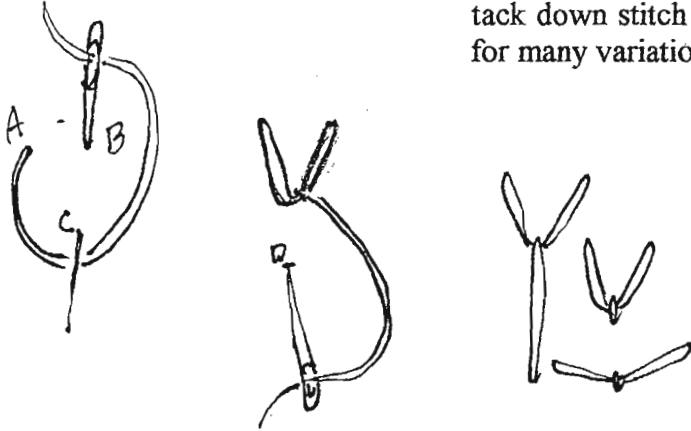
**WHIPPED BACKSTITCH - no hoop**

After stitching a row, slip the needle under each stitch, not piercing the fabric. Pull up after every 3 or 4 stitches to tighten. Note that the needle whips from one side only and passes under each backstitch once.



### *FLY STITCH – use hoop*

Needle up at A, loop yarn as if making a chain stitch, and down at B. Up at C and down at D to tack loop. Length of tack down stitch and placement of arms of fly stitch allow for many variations.

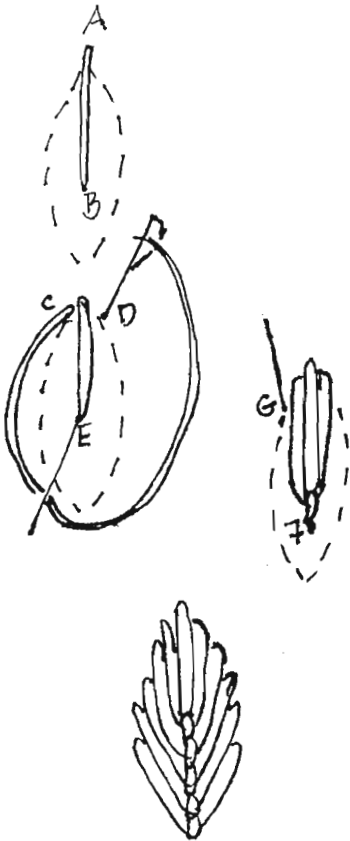


### *CLOSED FLY - use hoop*

Needle up at A, slightly beyond tip of leaf, and down at B. This stitch should be 1/3 to 1/2 the length of the leaf.

Up at C, loop yarn as if making a chain stitch, go down at D and up at E, which shares a hole with B.

Tack loop at F. Continue placing stitches next to each other so that no fabric is showing. Share holes with tack stitches; that is, the top of tack stitch shares a hole with bottom of previous tack stitch. In order to maintain a proper slant to the stitches, make tack stitches a bit longer than usual. Repeat the sequence C, D, E, and F for subsequent loops. End with a tack stitch.



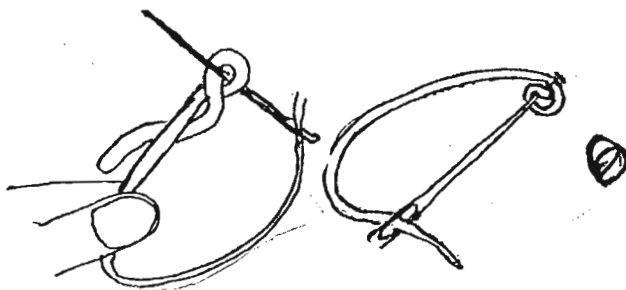
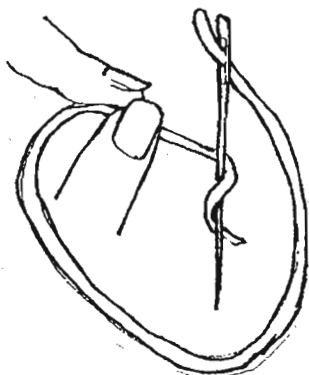
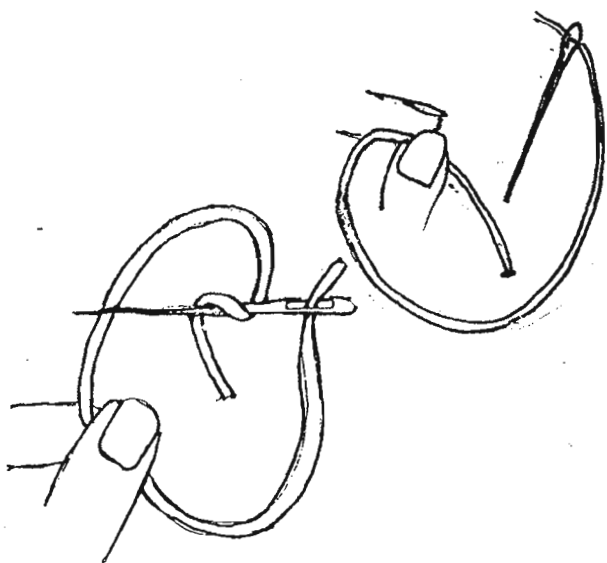
### *FRENCH KNOTS - use hoop with clamp*

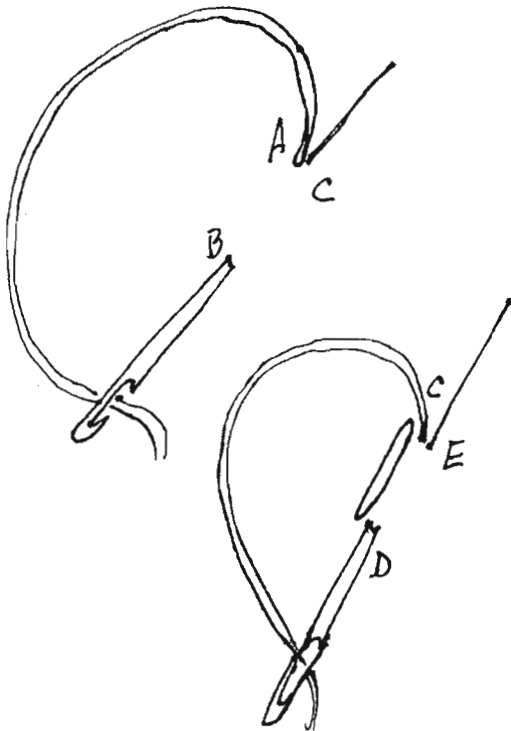
Hold thread up with thumb and forefinger about two inches from the point where thread emerged from fabric.

Imagine the thread coming out of the fabric in the center of a clock. Wind the needle once around the thread in a clockwise motion. Then bring the thread around to the left and under the tip of the needle as in the diagram to the left.

Snug thread down close to fabric and lock thread under point of needle with knot formed close to the fabric.

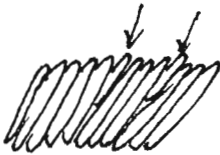
Insert point of needle a scant few threads from where thread came up....almost in the same place. Pull thread to back of fabric which will lock the knot in place.





### ***SATIN AND SLANTED SATIN - use hoop***

Satin stitches fill an area from one side to the other and the thread is carried across the back so that the next stitch begins right next to the first; there is an equal amount of thread on the top of the fabric as is on the back. When the thread goes through the fabric, it is pinched at each end. The thread fluffs out and fills the area in the middle, though. In order to ensure that you cover all transfer lines, stitch beyond the line about one needle's point distance; your area may be enlarged a tiny bit but your line will be covered. You may draw pencil guidelines on fabric to indicate the desired slant of stitches. You may begin stitching at the tip or the base of the motif, as you choose. In stitching growing shapes, such as leaves and flowers, use slanted satin. When stitching a circle, square, triangle, or other geometric shape, use plain satin.



Thread up at A, down at B, and up at C which is slightly further away than right next to A. Insert needle at D and up at E - this keeps the stitches at a nice angle. Yarn is carried across the back. Emphasize the slant. Notice the direction of stitches and change when moving along a curved space. Achieve this through the use of wedge stitches (note arrows) that are placed as the work progresses. Try to keep edges as even as possible.



Experiment with satin stitch by padding it. Inside the outline of your shape, do a layer of satin stitches at a right angle to the direction of the top layer. Stitch over this for the final layer. Several layers of padding can be used. Just remember that each one should be at a right angle to the next layer, and plan ahead so that you will come out right on the final layer.

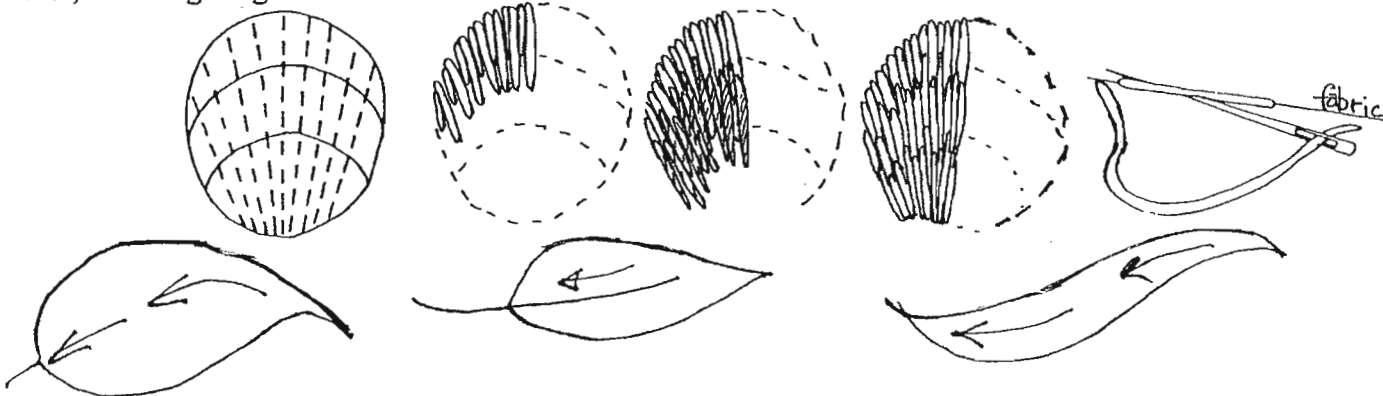
## Long and Short Shading - use hoop

The principle behind long and short shading is to provide a smooth blend of color, filling the shape or motif in a natural flow. The wool values to be used must be chosen carefully; distinct "steps" can be discerned if the values are too far apart. A clear, crisp edge is desired, covering the transfer line completely. Different edges can be used: plain long and short following the outline or buttonhole edge long and short.

**Plain long and short shading:** With a hard pencil, divide the shape with a number of horizontal curved lines, making color divisions. Draw vertical guidelines slanting toward the center of the shape. Starting in the middle at the top, using the lightest value place a long stitch extending beyond the first marked line and halfway into the next section. The next stitch should be immediately beside the first and should extend to the first line only. Continue a long stitch and a short stitch, slanting as you progress around the curve, following the vertical guidelines. This is the only row on which you will use long and short stitches; all other stitches in shading this shape will be long. When one side of the shape has been stitched, finish the other side, beginning at the middle again and working to the edge.

**The second step for both edges is the same:** Taking the next darkest value, split into the threads of the first row with as shallow an angle as possible, coming up from the back of the fabric (see diagram below). Coming up into the thread in this manner creates as little disturbance as possible of the original row with no pull or hole. Each time you take a stitch in this manner, vary the location of the stitch on the first row, staggering the placement to create a blended effect. Take the thread down into an unworked area being careful to keep the slant correct. Using the horizontal guidelines, place long stitches across the shape to create a staggered edge. Consider the direction that you intend the eye to follow. For instance: in a flower shape, aim for flower center by holding working thread in direction of center and taking thread down at that point. It may be necessary to skip a few stitches in order not to pack the threads too closely. Just be sure the fabric is covered. If the worked area becomes too "hairy," check to ensure the wool is threaded with the nap the correct way. Continue to repeat this second step with the remaining color values until the darkest is used with only a few stitches at the base of the motif. At this time some short stitches will be necessary to finish the base.

**Buttonhole edge:** When using a buttonhole edge, a different approach is necessary. The stitching must begin at the extreme right hand point of the shape with two or three tiny buttonhole stitches. Then a long buttonhole stitch is taken in which the thread covers the previous stitches and establishes the correct slant. To work on the motif in the design, please turn embroidery upside down to work this buttonhole edge and proceed according to directions on page 9. Proceed around the shape with buttonhole long and short stitches, following the guidelines for stitch direction.



## SUMMARY

You have now been introduced to the basic vocabulary of surface embroidery stitches, including crewel. With these stitches you could do beautiful embroidery for the rest of your life without ever learning another stitch – but don't stop here! As you practice the stitches in various threads and interesting variations, you will learn what each stitch does well and how to make it work for you. I hope you have learned some tricks to make your stitching neater, more controlled, and more expressive.

In addition I hope that this program has encouraged you to abandon the 'security of the grid' and to make your own decisions about stitch placement and size. To learn more about these stitches and others, we have included a bibliography, including my four favorite books. As further encouragement, I present a floral bouquet specifically designed to showcase the stitches within this program. You should choose your own colors and threads [although I have offered some suggestions on the colors.] I have indicated stitch placement but you can adjust that as you see fit.

The rest is up to you! Seek out good teachers, learn from your friends, take advantage of EGA's lending library, visit needlework shows – never stop learning. And, don't forget, share what you know with others.

If you would like to reach me with questions or comments, I am

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## “NEW KID” EMBROIDERY DESIGN



[See full size design on next page.]

**Flower A:** Stitch close buttonhole for all major petals in 3 values of rose, light for middle petal, medium for secondary petals, and dark for background petals. Calyx is stitched in close fly stitch in 2 values of olive green, your choice of placement. All stems are whipped chain in medium grass green.

**Flower B:** Center oval is worked in close buttonhole in gold leaving the center voided [or you may work a row of running stitch up the middle or a row of French knots.] The petals to each side are in 3 values of rose in shaded chain stitch. The long leaf is slanted satin in olive green.

**Flower C:** Work long and short stitch with clear division lines between petals using a combination of gold and rose. Tendrils at top are olive green in whipped outline or stem.

**Leaf #1 and #2:** Work slanted satin stitch in two values of grass green. Leave center void.

**Leaf #3:** Work open buttonhole on upper portion in grass green and lower part in slanted satin stitch.

**Leaves #4:** Work stem in whipped stem or outline with olive green. Work close fly stitches with first three stitches of tips in rose and base of each leaf [remaining stitches] in olive green.

**“NEW KID” – TRACING DESIGN**



## BIBLIOGRAPHY

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\* top four recommended books

## “NEW KID” INDEX

- Back stitch – 9
- Bibliography – 17
- Buttonhole – 9
  - Chain – 8
  - Closed Fly – 10
- Darning stitch – 4
- Embroidery Design – 15-16
  - Fabric – 2
  - Fly stitch – 10
  - French knots – 11
  - Hoops – 3
- Long and Short shading – 13
  - Outline – 7
  - Needles – 3
- Running stitch – 6
  - Satin – 12
  - Stem – 7
  - Straight – 6
- Summary – 14
- Threads – 2
- Transferring Designs – 4
  - Tying-in – 4
  - Washing – 5
- Whipped back – 9
- Whipped chain – 8
- Whipped outline – 7
- Whipped stem – 7