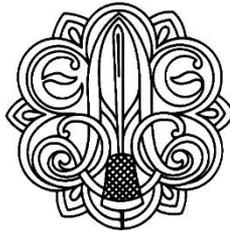


# A LITTLE BOOK OF EMBROIDERY BASICS

A collection of hints, tips, tricks  
and other assorted tidbits  
to encourage and enable an embroiderer  
to learn, improve and enhance her/his skills



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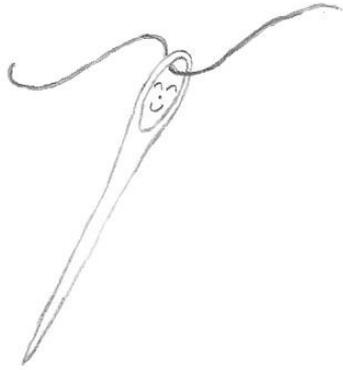
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# INTRODUCTION

*A Little Book* provides a BASIC reference for stitchers of all types of embroidery with all levels of expertise. It is a book about stitch-ING, not a compendium of stitch-ES. It also is by no means a book of absolutely everything. Over the years, I learned from visiting with fellow embroiderers, from taking classes from certified teachers, and from numerous books about the different forms of embroidery, that there were many little tips and hints that don't get written down at all; sometimes particular hints are presented in connection with the project on which they are used. So I started collecting little things I learned...and most of them are here. You probably have some others – feel free to jot them down!



The Embroiderers' Guild of America is a not-for-profit organization dedicated to the study and preservation of the art of embroidery. How can we preserve what we do not know? There are always different ways to perform the same tasks (like threading a needle, placing beginning and ending tails), so each embroiderer should find the procedure that produces the most satisfactory project for them.

While *A Little Book of Embroidery Basics* focuses on embroidery on woven fabric (of whatever kind), most of the basics apply to whatever medium the embroiderer chooses.

“The Expert Advises” – little thoughts from experienced teachers answering questions they have received in classes or offering new ideas, all of which, without doubt, will help the stitcher improve – appear throughout the book. The initials of each teacher follow their wise words; a list in the Bibliography gives their full names.



*Explore a new technique with a project or class. If you find you do not like the technique you can put it in the "I learned what I don't want to do pile." CAH*



*Resist the urge to abandon a project midway because it "doesn't look good enough." You are concentrating on individual stitches and when the project is complete, you will be able to view it as a whole. More often than not, it will be more acceptable! RC*

The book wouldn't even exist if Leslie Gagliardi, who at the time was Director of Education for EGA, and I hadn't talked in Phoenix, courtesy of Karen Hamilton, who was Region Director for South Central Region and who knew I was thinking about some sort of way to get these "basics" known. Not only did Leslie and Karen both lend their grammar and punctuation skills for you but added some of their stitching wisdom as well. Leslie serves as President of EGA and Karen is Director of Membership and Marketing for 2015-2018.

My good and trusty friend, Needle Nellie, graciously appears several times to provide a picture of what I'm trying to say – she saves thousands of words. Named for my paternal grandmother who passed her genetic thread to me, I do hope she is helpful to you.

# FIRST THINGS FIRST

**CLEAN!** Before you start doing anything, make certain your hands, frames, tables, and scissors are clean of soil, blood, or debris. It's worth the time to check it out BEFORE you discover it later. AND since you don't want your rough, dry hands snagging on the threads, there are several lotions on the market that advertise "no oily feeling" (which infers that oil on your work is a no-no – and they're right!) - but always check it out for yourself. Check out those oils with salt or sugar rubs – mmm... smooth and soft, too.



*I always clean my hands before stitching by washing with soap and water. Sometimes only a hand sanitizer and tissues are available. If out of hand sanitizer, use Listerine. MR*

I once used hand sanitizer because water was not available – but apparently I didn't get it all tissueed off – let's just say I was not happy. Now I carry a zipper bag with a damp washcloth in it when I know I'm not going to be able to wash with soap and water.

**COLLECT!** After you have found all the materials and tools necessary to work your project, put them all together in one place – with the instructions! It's great fun to customize a favorite basket with a liner and matching "smalls." Many stitchers have several favorite baskets each already stocked with favorite tools for different projects. Just be sure your threads are not going to get messed up or snagged.



*Focus on enjoying the process of stitching – the colors and textures of the threads, the little sound the needle makes as it goes in and out. Loving to stitch will move the work forward more effectively than desire for the finished product. LS*

**COMFORT!** Be sure the chair you are going to spend a lot of time in is comfortable when you sit in “stitching position.” Your back needs to be fairly straight, definitely not scrunched over, and your feet should be planted on something – the floor is perfect, but you might want to invest in a little footrest, such as a mothers’ nursing stool, or a collapsible stool just big enough for two feet and great for traveling. If you are going to use a table, it is ideal for you to be able to put your bent arms on the table without lifting your shoulders. If you use a table stand, maneuver the frame so that your hands can work without lifting your shoulders. The same applies to a floor stand. You are going to spend a lot of time in that position, so make sure you don’t regret it!



**REST!** Actually, even if you are so comfortable you could sleep in that position, you should always take a break every hour, even if you only stop stitching and do some arm stretches and back wiggles still in your chair. Your whole body will be very grateful if you will get up and move around so the blood can flow back into your legs!



*Music is a good motivator. If you play a 45-minute CD, when it ends, it's time to get up and stretch. LS*

**BEFORE you start stitching** is a good time to make certain ALL of your threads are colorfast; many over-dyed threads are not. Rinse a short length in lukewarm water and lay it on a white paper towel to dry – the answer will present itself!

**MAKE YOUR MARK:** If you are going somewhere other than your own “nest” to stitch – a seminar, a friend’s house, a classroom – mark EVERY piece of your supplies with your identification and take care to maintain control of them. And when you are in a class with other stitchers at your table, mark EVERY item in that kit with your I.D. – think about it.



***Take your time** and stitch a little each day. Soon each project will be done and you won't even realize it has taken a length of time. CAH*

# PATTERNS and INSTRUCTIONS

**COPYRIGHT:** You have just purchased a pattern and set of instructions from a store, which purchased it from a supplier who purchased it from a publisher who purchased it from the designer. Copyright laws in the United States are subject to Fair Use practices, but the definition of “Fair Use” is subject to interpretation. Some designers state clearly on their patterns and instructions that no copying in any form may be made without the copyright owner’s permission; others allow copying for “personal use;” others just don’t say anything.

The “legal” thing to do is to work from the patterns and instructions rather than copy them. If you really do need to make a copy, the courteous thing to do is to contact the designer and just ask permission to do so. You will likely not only get permission, but a word of thanks from the designer for purchasing the pattern and instructions!

**TRACK YOUR PROGRESS:** It is often wise to mark the pattern as you stitch along. Shade with a pencil the area or row or column just completed. Why a pencil? Because if you discover a mistake in your stitching and need to remove stitches (aka rip out), you can erase the pencil shading.

**LEARN FROM AN EXPERT:** If you have the opportunity to learn from an expert – and there are many in EGA – do so! Not all of them are teachers at seminars (some might be fellow chapter members), but the vast majority would be delighted to share their expertise with an eager student.





When learning a new technique, **watching someone do it is helpful**. However, it is **MOST** important to understand the end result and then teach your own hands to achieve that goal. Trial and error may take time, but it is well worth it. RC

**TRANSFERRING A PATTERN:** If you have chosen a pattern that requires transferring the outline of the pattern from paper to fabric, there are several ways the task can be accomplished. There are methods that are temporary and methods that are permanent. Be wary of the marking pens available in fabric stores for sewing (some that state they will disappear with water or with heat do not disappear completely or permanently). Other methods of transfer are templates, tacking, design pens (permanent ink but very fine nibs), pouncing with paper and chalk, dressmakers' carbon, and iron-on transfer pens, among others. The type of fabric matters completely. Choose carefully and always test it on the fabric.



If you are taking a class or workshop, **have your eyes checked** beforehand. Allow enough advance time for new glasses to arrive if they have to be ordered. LS



Relax and enjoy the process. Don't be in such a big hurry to finish a project that you forget to enjoy the stitching. CSW

# MAKING THE DESIGN “YOUR OWN” OR MAKING YOUR OWN DESIGN



*Use the stitches, threads, and colors that will fit in your home and that you like.*

*If you hate a stitch, change it. CAH*

## CHANGING THREAD COLORS:

1. If you don't like a color, start your search with a color more to your liking but with the same value as the designer proposed.
2. Assemble all the proposed threads. Unfocus your eyes and look at the general “blend” of the colors. Now replace with your substitution. Is the “blend” similar? Does the new color “not go” with the others? Do you need to replace another color to make it work?



*Use a transparent red plastic device to **view for value** errors when checking for color balance. JJ*

3. Now begins the game. One color change has the ability to ruin or enhance the appearance of a piece of embroidery. Light, hue, chroma, saturation, intensity, value, tone – all these factors matter when making any changes. And in embroidery you have the additional challenges of thread sheen and twist and stitch direction.



*View thread color or value on background fabric, but use only one strand instead of the entire hank, skein, or spool. Thread on a hank or spool appears differently (darker) than in a single strand. JJ*

4. The subject is fascinating. Many books are available about color and quite a good number about color and embroidery. It's a good idea to add at least one to your library if you plan to "customize" your needlework. The addition of a simple (or complex) color wheel also is a must. And thread color cards (especially ones with actual threads on them) are indispensable.

5. Having said all that, most embroiderers do have an innate sense of color and all that goes with it, so, generally speaking, you are probably going to be able to tell by experimentation whether a change will be acceptable. And one of the advantages of EGA is that you have many friends whose opinion you could request. The question of to whom the changes are acceptable depends entirely on who you want to please – yourself, your relative .... or perhaps a needlework judge.

6. Speaking of EGA, if a seminar class or correspondence course in design is available, you will never regret taking it – it could even open up a whole new avenue for you!

**POINT TO PONDER:**  
**Changing the color of the FABRIC might  
necessitate changing ALL the thread colors!**

**CONSIDER THE NAP:** Always consider the possibility that even if your thread appears not to have a nap, it just might. Nap does affect the way light plays on the color of your thread in the design. So, it is a good idea to always thread the needle with the same end of the thread (either the end you hold as you pull from the skein or the end you cut from the skein).

**OFF THE SKEIN:** But what if you have a length of thread that has been cut and is not on a skein? Hold the lengths up in front of a light and see which way the filaments flare out. They are like the feathers on an arrow, i.e., they point the way forward.

**CONSIDER THE LIGHT:** When considering what colors to use (thread and fabric), think about what the light source will be. Incandescent bulbs generally yield a yellowish light; the new “daylight” bulbs generally yield a bluish light; sunlight is generally a mixture of the two; fluorescent lamps yield a greenish-blue light. Any given color will change accordingly. Many threads are light sensitive and may fade or completely deteriorate in sunlight or in fluorescent light.

**CONSIDER THE AIR:** Another consideration is the atmospheric conditions. A home is more humid than an office. A home has more dust than an office. Florida is more humid than Nevada. Smog is not friendly to needlework.

**CONSIDER THE USE:** A pillow will receive more wear than a framed piece. A doily or napkin will be washed more often.



*When designing your own work, view the draft design in the mirror to catch any balance or proportion errors. JJ*

Changing the actual design to suit your own purpose is another whole topic! Of course, most designers don't mind, but please don't take advantage of them by making one small change and marketing it as your own design.

If you change an element in a design, all the other factors (color, thread type, stitch) may have to be changed. Use all the points noted about changing colors, plus some more. Many of the design points you find in artwork how-to books apply to embroidery.

# TOOLS

## **An Embroidery Kit should contain:**

Needles – a variety of types (all rather necessary for embroidery!)

Scissors –

- Embroidery (used only for non-metal threads)

- Embroidery with very sharp narrow points

- Serrated edge with points (used for metal threads)

- Fabric (used only for fabrics)

- Craft/paper (used for paper, card stock, plastic sheets, etc.)

Measuring devices –

- Tape Measure – 36"

- Clear, flexible ruler – 6" (check out the 12" ones that have markings for different thread counts)

Marking devices –

- Pencil or pen (that will not smudge on the fabric)

- Pencil or other (that makes removable marks)

- Straight pins (for counting – with or without decorative caps)

- Straight pins (for construction of dimensional pieces and who knows what else)

- Pencil or highlighter (for marking the pattern)

- Eraser (the white polymer ones make less mess)

Magnification – lighted or not (table mounted, hoop mounted, special glasses, special clip-on lenses, etc.)

Light/lamp – bright (table mounted, hoop mounted, etc.)

Thimble or substitute

Pincushion and emery – at least one of each

Tweezers/burling iron (helpful for removing stitches or fabric threads or slubs in linen)

Needle threader/s (never hurts! – many sizes and shapes are available)

Laying tools (mellor, tekobari, thimble-mounted, a needle, etc.)

Stiletto, awl (for making holes in fabric)

Device for pulling short thread ends through fabric or stitches

Tools specific to different embroidery methods (aficot, hedebo stick and half cone, brushes, pliers, wire cutters, etc.)

Graph paper, tracing paper, note pad

Pincushions are a whole subject by themselves! (Not to mention a huge stitching opportunity.) For your precious needles, you need one that has been filled somewhat firmly with a material that will not harm the needles; wool roving is good, crushed walnut hulls are excellent (they serve as a good cleaner as well), very clean fine sand is quite nice, polyester or bamboo or cotton battings are very popular.

*Good tools will make work easier –  
sharp scissors,  
high quality wooden hoops,  
smooth needles,  
good light,  
and magnification! RC*

When stitching on a dark fabric, lay a white fabric behind the hoop or frame (on the table or on your lap). It also helps when stitching light thread on a light color fabric to have a dark fabric under or behind the work. The contrast allows the hole to be revealed!

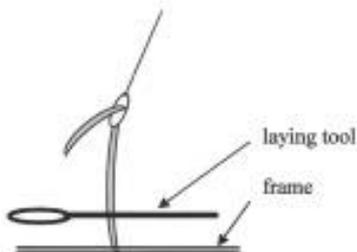
**Laying Tools:** If more than one thread is being used for a project, the threads must be coerced into lying parallel together from hole to hole. The best tool for this is called a *laying tool*. They are sold in a huge variety – porcupine quills to sterling silver, wood to ivory; free to expensive. They also come in different forms: a bent or a straight tapestry needle soldered to a ring thimble, a beautifully turned and polished wood handle sharpened to a point, a beautiful piece of steel with almost a needle-sharp point, a needle or a finger.



### **How to use a laying tool and why:**

The laying tool allows you to lay the multiple strands of cotton smoothly upon the ground fabric. It requires both hands so frame or hoop must be stationary. Bring the

needle **straight up** through the fabric so that the threads in the needle are perpendicular to the frame/hoop. With the laying tool in your other hand, stroke the threads so that they flatten and lay next to each other. Insert the needle while keeping the laying tool in its position until the very end, at which time you slowly remove the tool so that thread doesn't have a chance to twist. IA



**Scissors come in more varieties than needles!** The length and strength of the blades, curved blades, the angle of the points, the width of the very end of the point, the size and shape of the finger holes, the decoration of the handle, the composition of the metal, serrated edges, and most important, the quality of the manufacture. Some scissors are expensive and work well, some are inexpensive and work just as well. And you can never have too many; ask any embroiderer.

There are very good reasons for all of these types of scissors.

- When the only use is to snip a thread, a short, sharp blade is just the thing.
- When removing actual fabric threads, a long, narrow, and very pointed blade is a must.
- Cutting fabric actually does dull delicate blades, so sturdy shears are good for that job.
- For precision cutting, blades that are curved might be the very thing.
- For clipping metallic threads, serrated blades help hold the slippery metal in place.

!!! Paper and cardstock are the worst culprits for ruining sharp blades. ALWAYS have a pair of scissors well marked to be used for paper – never use delicate blades.

If you are going to travel, find out what tools you can carry – turning over your beautiful scissors or favorite laying tool or pricey tweezers to the security folks is not a pleasant way to start your trip.

Use a professional sharpener – a person, that is – for your expensive blades. And make certain BEFORE you entrust your tools to him that he (or she) has the requisite knowledge to perform this delicate surgery to your blades. Some scissor manufacturers sell home-style sharpening devices; if you choose to use this method, use only the device sold by the manufacturer of the scissors on which you plan to use it.

# EQUIPMENT



**LIGHT & MAGNIFICATION:** *Invest in a good light and magnifier. Even with the best eyesight, there are lighting conditions and fine fabrics that require both. LS*

Magnification -- lighted or not. They are available table mounted, on floor stands with and without lamps, hoop mounted, as special glasses or special lenses to attach to prescription glasses. Look further than needlework suppliers; jewelers' head-mounted magnifiers often have built in lights.

Light/Lamp – regardless of what kind of bulb (“day light”, “sun light,” florescent, LED, incandescent) the light needs to be bright. These, too, are available just about any way that can point the beam.

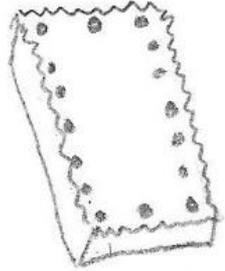
The best plan is to go shopping and if possible, try before you buy. Ask fellow stitchers what they use. You probably will find that you need more than one – lamps and magnifiers!

Light should fall on the work from just behind your left shoulder for right-handed stitchers or the right shoulder for left-handed stitchers. But this is only a rule of thumb; some stitches might cause your non-needle hand to create a shadow where you most need the light – so move the light! There are lamp/magnification combination devices on which the light is directed straight down onto the work.

## **STRETCHER BARS, SCROLL RODS, SLATE FRAME, HOOPS, HANDS? WHAT SHOULD BE USED FOR WHAT?**

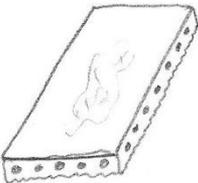
With any type of support, it is a good idea to mark the horizontal and vertical centers of the bars or rods by using a permanent marker. Basting lines on the horizontal and vertical centers of the fabric help the alignment and attachment process to go smoothly.

**STRETCHER BARS:** These come in a myriad of sizes. Each manufacturer makes stretcher bars that are slightly different from others, so it's good to select a brand and stick with it. If your goal is to have your fabric drum tight as you work, stretching over bars should be your choice. There are several "varieties" of stretcher bars as well; some have attached devices to enable adjustments to maintain the tension on the fabric.



Stitches must be "stabbed" when using stretcher bars, simply because the "sewing" method requires "bending" the fabric. What is the difference? See the **Making Stitches** section.

Generally speaking, the size of bars to be purchased matches the size of the fabric, so there is no fabric outside of the bars and the tacks or staples are placed on top of the bars.



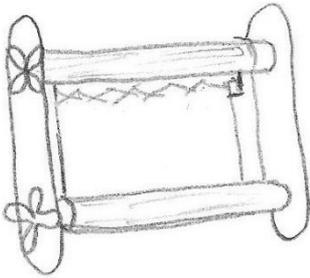
There is, however, a method of attaching in which the bars are several inches smaller than the fabric; the fabric is wrapped partway around the outside of the bar and tacked or stapled to the outside "edges" of the bars.

Another procedure has the fabric (usually an expensive or delicate one) tacked to a stronger fabric (linen or such – non-stretchy), which is fastened to the bars by means of overcasting through the fabric around the bars. Ends up looking very much like a Slate Frame setup (read on). This procedure can assure a drum tight mount, and is best learned in person.

The order in which the brass tacks are placed influences the tightness of the fabric, as does the number of tacks that are placed. It's possible to describe the order, but the best way to find out how to do a good job is to watch someone's hands and how they handle the fabric and tacks.

Brass tacks also come in various qualities. If your piece is going to be on the bars for a lengthy time, be sure to get good tacks, which won't discolor over time. If your piece is going to be a quick one, you can even use staples. When/if the fabric becomes less tight, the tacks can be re-positioned easily.

**SCROLL RODS AND STRUTS (aka SIDE BARS):** These, too, come in a myriad of sizes, and here, too, each manufacturer makes rods and bars that are slightly different, so again, it's good to select a brand and stick with it. The fabric is attached to the scroll rods only at the upper and lower edges; the sides will be somewhat loose although there are ways to give support to the sides as well.



The size of the rod must be no less than the width of the fabric; personal preference determines whether some space between the strut and the fabric edge should be allowed. The size of the strut also is a personal preference; it determines how much working space you will have.

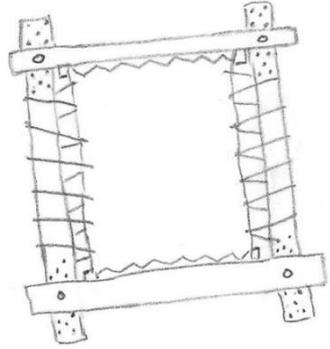
The preferred method for securing the fabric to the rods is by stitching the straight edge of the fabric to a twill tape that is fastened to the rod. The fabric is then rolled from either rod and held tight with wing nuts. Rod and strut configurations that have the scrolling rods vertical and the struts horizontal are also available.

The question of whether to stitch “inside” the scroll or “outside” is personal preference, too. There are very good reasons to do either.

Often a strip of batting is added between the “layers” of fabric around the rod to protect the loft of stitches or beads – this can, however, cause the roll of fabric on the rod to be bumpy and lumpy, which can distort the fabric. Use with caution; a better solution is to put those stitches or beads on at the very end of the stitching process.

As with stretcher bars, watching someone mount the fabric is the best way to learn. The best stitch is the one that gets the fabric evenly and securely fastened.

**SLATE FRAME:** This is the second oldest form of holding embroidery (hands are the oldest). It is a set of bars to which the fabric is actually fastened by lacing thread through the fabric edge and around the frame. The struts are a pre-defined length but they have holes into which pegs or pins are placed to hold the bars taut. There are varieties of this type of frame developed in different countries and for different embroideries, but all have the same goal of holding the fabric “drum tight.”



The procedure for preparing the fabric and actually mounting on a slate frame is somewhat involved and definitely best taught by an expert. But the effort is worth your while.

**HOOPS:** How many ways can you make a pair of wood or plastic shapes hold some fabric - circles, rounded squares, ovals, shallow, deep, lipped, screws, springs, and every size. Always use a good quality hoop.

A hoop should be used only when the specific motif being stitched fits within the circle of the hoop. The very nature of the hoop holding the fabric indicates that whatever gets between the outside hoop and the inside hoop is going to be mashed. The choice is to get a different hoop or choose a different mounting procedure.



*Use a hoop or frame for stitches that are "stabbed" and not for stitches that are "sewn" - simply hold the fabric soft in your hand. JJ*



### **When using a hoop:**

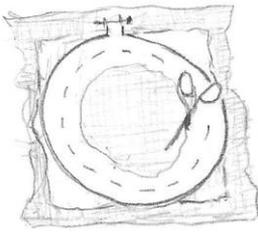
*To avoid unsightly ring marks on your linen caused by the impression the hoop leaves on the linen when tightly mounted, one should cushion the rings slightly. Wrapping both rings with thin gauze cut in strips can do this most effectively. The easiest way would be to purchase the gauze (bandage) at your local drugstore. You can also improvise by using strips of any thin material that you may have on hand. Seam binding or thin ribbon or hemming tape also work well. Caution must be taken so that wrappings are not too thick to accommodate the linen fabric as well. IA*

*Attach the tape close to the screw with a few stitches. Then wrap around the hoop diagonally until the opposite end is reached. Fasten with a few stitches. The wrapping must be done tightly and thinly or you will find that the screw is too short when stretching the linen fabric. Both rings must be wrapped. IA*

### **Why use a hoop or a frame?**

- Framing or hooping holds the fabric as it was designed to lie – flat.
- The method of stitching in a frame or hoop is “stabbing” the thread straight down through the hole, rather than “sewing” the thread at an angle. Stabbing allows the thread to rest gently against the fabric on the backside before it reappears in a new hole.
- Physically speaking, the length of the thread on the back of a rolled piece of fabric is shorter than it would be if the fabric were flat, so the thread on the front is going to be distorted.

Stitching “in hand” actually is preferable in many embroidery methods. It allows smooth and easy movement from one area to another, especially when the project is large, such as a tablecloth or runner.



When stitching on fabric that could be damaged by the hoop, but you want a firm support, add a piece of muslin on top of your fabric, secure in the hoop and baste a “circle” around your focal area with medium length stitches; then, being extremely careful to cut only the muslin, cut out a circle large enough not to get in the way of the stitching.

This same concept can be used for any needlework project. A piece of fabric can be basted over a particularly delicate area of stitching so it doesn’t get disturbed as you work around it. A ring could be basted over stitched areas to protect them as you stitch something between them. Be sure the basting stitches don’t harm the stitches you are trying to protect!

If your piece of fabric is too small for the only hoop you have, baste it on top of a larger piece of muslin which does fit the hoop.

**FLOOR AND TABLE STANDS** are extremely handy, especially the ones that fold or break down for travel. There are several brands and the “best” must be determined by the stitcher. They vary in material and price. Always bear in mind that the position of the embroidery needs to be comfortable to the stitcher. Some are easily adjusted; others are solid. Some have “components” that can be added to the base unit; some are all-in-one. Some are convertible from floor to table; some are not. Table stands often need the addition of a weight on the base to maintain balance when the embroideries are oversized. (Custom creation of a “frame weight” is a perfect stitching opportunity!) Shop carefully for stands.

# FABRIC

Linen. Cotton. Silk. Synthetics. Blends. Paper. Animal Skin. Wool. Wool Felt and Fulled (aka “Felted”) Wool. Perforated Metals. Plastic. If you can get a needle and thread through it, you can stitch on it.

Here are some of the more widely known fabrics  
– most definitely not all:

FABRIC NAME	TYPE THREAD; WEAVE (warp/weft or woof)	THREADS PER INCH
Canvas	Stiffened cotton; Mono (1/1), Penelope (2/2), Waste (2/2), Interlock (2/1)	7-24
Congress	Cotton – stiff or soft; Single (1/1)	24
AIDA and variations	100% cotton; Multiple warp/weft	8-18
Hardanger	Usually 100% cotton; Hardanger (2/2)	22
Monk’s Cloth Huck Fabric	Usually 100% cotton; Multiple warp/weft	7 or 14
Linen	100% linen; “Evenweave” (1/1)	19-45+
Floba, Jasmin, Jobelan, Lugana, Quaker, et al	Synthetic / Natural blends; “Evenweave” (1/1)	10-32
Crewel	Linen or cotton; Twill weave	
Silk Gauze	100% silk; “Evenweave”	25-48
Silk wovens	100% silk; Smooth, slubbed, high count	

Learn about the different brands – Zweigart, Wichelt, and Access Commodities are the most common. Each company’s fabrics look and act differently from each other. Use the fabric best suited to your project.

**“EVENWEAVE”** indicates that the fabric thread count per inch is the same for warp and for weft. Most fabrics that are designated “evenweave” are not, simply because of the nature of thread, but they ARE very, very close. If your project requires certain absolute measurements, be diligent in selection of fabric. That said, the differences are usually no more than two threads.



***This is NOT the time to economize!*** *If you are going to spend many hours and your skill in creating an embroidered work of art, whether it will be a zipper case for your sunglasses or a large masterpiece, you should use the BEST quality of fabric that is available. MS*

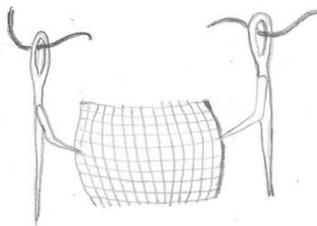
**THE RIGHT SIDE:** Always check to determine the “right” side of the fabric. Most fabrics do have sides. Usually it will be the side that has a textured feeling to it. But that doesn’t mean you MUST stitch on that side. Sometimes the back side of an overdyed fabric is more suitable. Sometimes you can’t tell which it is; if you can’t tell, who will?

**OVERDYED FABRICS:** These are somewhat delicate in that the dyes are not always absolutely permanent – that is to say that the colors might run if the fabric gets wet. ALWAYS TEST FIRST. When purchasing, think about the placement of your embroidery in relation to the different tones of the fabric – and this is one instance when the “back” could be very different from the “front.”

If your pattern has large areas without stitches,  
be very picky when purchasing your fabric.  
Watch for imperfections in the weave.

**THE GRAIN:** Always check to determine the “grain” of the fabric. Thread doesn’t seem to weigh much, but when lots of it is placed in a small area, gravity does have a way of doing its thing. The “grain” is usually defined as the direction of the warp threads – the long threads on the loom. The selvage on your fabric is made up of warp threads, so you know the grain of that fabric. The “crosswise” threads, a.k.a. weft threads, are those that are woven back and forth through the warp threads.

**NO SELVAGE:** What if you don’t have a selvage to go by? Gently stretch the fabric with hands on opposite sides. If there is some movement, you are pulling on the weft threads; no **movement**, warp threads.



**GRAVITY WINS – ALWAYS:** If you are going to make something to hang on the wall, you don’t want the weight of the thread to cause a sag in the fabric. You want to stitch **with the grain** of the fabric going vertically.

**FABRIC “SIZING”:** Generally speaking, fabrics are treated with chemicals to make them look good to the consumer. These chemicals need to be removed, particularly if the piece is intended for an heirloom. How can you tell if it was treated? It has some stiffness to it, and feels crunchy when crumpled in your hand. Wash the fabric first and press it gently; then prepare it for stitching.

#### **WHAT IF YOU ACCIDENTALLY CUT A FABRIC THREAD?**

First, **DON’T PANIC!** In most cases you can recover by laying a new thread across the cut fabric thread and stitching over both. Or a small piece of fabric might be “patched” in. Either of these solutions should be done ~~very~~ extremely carefully, and are some of those skills best taught in person. Sometimes it is advisable to withdraw the cut thread completely and re-weave with a new fabric thread drawn from the fabric edge.

## **BEFORE STITCHING BEGINS:**

1. Straighten the edges and cut away any wandering threads.
2. Secure the edges by hand or machine overcasting, or wrapping in acid-free tape. You can get away with not doing this sometimes, but be aware that trying to deal with the thread in the needle is rather stressful if loose fabric threads are in the way – it seems to be a natural law that loose fabric thread ends are compelled to intertwine with a moving design thread 😊 .
3. Remove large **SLUBS** in linen with extreme caution and care. These are fiber bits that were caught up in the process of spinning and/or weaving. Removal of these bits on some dyed fabrics could result in a white dot on your surface. However, stitching over the slubs will result in unsightly, distorted stitches. Always examine your fabric. Use very sharp tweezers to pull the slub out filament by filament, pulling in the direction of the twist. Sometimes the slub is so twisted the whole thing will come out at once, so you might need to rearrange the weaving. I have found that higher quality fabrics have fewer slubs.

## **HOW MUCH FABRIC TO BUY:**

Kits usually have the necessary amount of fabric to finish the project as pictured. Most instructors state the amount of fabric needed. Designers usually provide the amount of fabric with their instructions.

But what if you prefer a different count of fabric? Or a different finish? Or what if only the number of stitches is provided? The answer is not totally simple. If you have the DESIGN AREA STITCH COUNT, you can haul out your arithmetic and figure out what size the design parameters are.

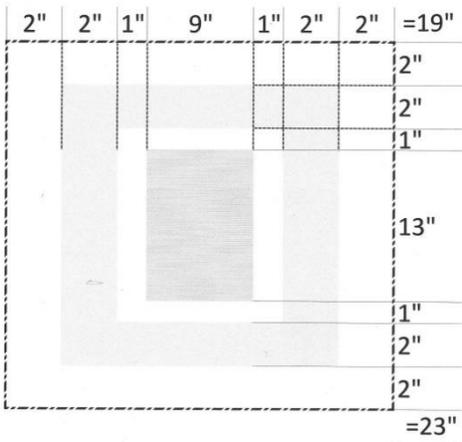
You have to think ahead and decide how you will finish the item. First, go by the picture of the designer's finished product. Second, decide if you want to use that or change it. Third, decide how you might want to change it – with a mat, with a wider mat, with batting and no mat, without batting, with a wider margin. If in doubt, consult your framer.

**A STANDARD “RULE” FOR A PIECE THAT WILL BE FRAMED:**

A simple suggestion is to add 3 or 4 inches of “extra” fabric to each side of the design area. This allows space between the design area and the frame (the margin) and enough fabric to wrap to the back for mounting/securing. The ACTUAL amounts vary due to the particular finishing method – this “rule” can serve as a reminder to think about TOTAL fabric size BEFORE purchasing.

If you want to finish with a mat, however, you need to add the width of the mat for each side, which also means you need to add a margin between the embroidery and the mat.

So, let’s say you want a 2” mat. Usually ½ to 1 inch is appropriate for the margin, but that is best determined after the stitching is finished and the mat and frame are being selected; THEREFORE, be safe and allow 1” for the margin. I suggest 2” for the mounting allowance because getting the fabric straight and being able to “stretch” it is more accurately done when there is enough fabric to get a grip on. Take a 9” x 13” picture for example.



Perhaps this picture will explain better. I used whole numbers for simplicity. The actual numbers will depend on your own good judgment.



**THIS IS VERY IMPORTANT!** – These amounts ARE NOT what you should purchase – these amounts are what you should **end up with** in order to finish your piece! The most obvious need is to make

sure the fabric will fit into whatever support (hoop, bars, rods) you intend to use. What if you should decide to frame that ornament you just stitched? What would you do if you decided at the frame shop to have a 2” wide mat instead of just a frame? You can always trim away an excess.

**DIMENSIONAL OBJECTS:** If you plan to make a dimensional object such as a pin cushion or a scissor fob, an ornament, or a stand-alone, plan to make the seam allowance sufficient to hold up with a lot of manipulation as you put in the stuffing. If you see there will be a lot of manipulation, overcasting the raw edge of the seam allowance will be helpful. Backstitching along the seam line will help maintain the proposed shape of the object when filling.

When selecting a fabric, be aware that **not all fabrics are easily manipulated**. Synthetics are usually crease resistant, which might not be a good thing when making a small object.

When using **loosely woven fabric** or if you have a design area with “holes” (such as hardanger or pulled thread or drawn thread), back the fabric with a closely woven fabric – just be sure it enhances your work.

If you will be using the thread-drawing method of gathering the fabric into a circle, make the “seam allowance” be a bit less than half the diameter of the finished piece all the way around the circle. It’s very disconcerting to have a huge allowance on one side and a narrow one on the other. Equal allowance also aids in centering the piece on whatever you are using for a mounting.

# NEEDLES

it is very important to have the right needle in the right size for the right thread on the right project. As embroidery progressed over the years, needle makers made slight adjustments to maximize performance for different types of fabrics and threads and uses.

**Basically, the size of the needle, regardless of use, should enable the thread to pass through the fabric without stress either to the thread, the fabric, or the stitcher.** When the choice of sizes is limited, choose a larger needle, even than what you think you should use (within logical limits, of course). The needle should never permanently disturb the weave of the fabric (unless it's deliberate, of course).


CHENILLE

TAPESTRY

CREWEL / EMBROIDERY

DARNER

SHARP

BETWEEN

MILLINER'S

These are only the most common; there are many more.

A good reference and tool for any EGA member is the booklet entitled “The Needle Index” published by the Valley Quail Chapter of EGA in California. This booklet contains a wealth of information about needle sizes and recommended threads and uses.



***Needle size can vary; there is usually an optimum size for a needle, such as size 22 for 18 count canvas. But, there may be times where stitching ease or thread protection is a goal. Use a smaller needle for ease of stitching, and to reduce strain on arthritic joints, such as size 24 for 18 count canvas. Conversely, to reduce thread abrasion, go to a larger needle size, such as size 20 for 18-count canvas. MR***

**WHICH NEEDLES ARE THE BEST?** The answer is “the one that suits your purpose best.” Among needlemakers, there are slight variations in actual needle length or eye width or shaft strength, or even the angle with which the shaft “sharpens” to the point. Quality of workmanship is certainly a factor to be considered. One sure statement is that discerning needleworkers use the best equipment they can afford.

**THE EYE OF A NEEDLE HAS TWO SIDES:** The eye is pressed into the wire, so the opening on the top of the needle is slightly larger than the opening on the bottom. Always have the larger opening toward the thread when threading the needle - it really does work! Also examine every new needle for burrs in the eye.

Use a milliner’s needle to make French knots. The straight shaft helps keep the center of the knot tidy.



***In counted work, using a sharp needle, say an embroidery #9, instead of a tapestry brings exact placement of the thread as it is pulled through. It also is a more efficient way of burying the end of a working thread when it's time to tie off. SKW***



*A milliners' needle is best for bullions and cast-on stitches as its consistent diameter from point to eye makes it easier to pull through. KS*



*To avoid excessive thread-wear on floche, use a #7 between needle. (The round eye reduces wear.) KS*

**NEEDLES DO WEAR OUT:** The eyes might get bent together, the finish of the needle might wear off, the shaft might get bent, the point is so bad the emery can't help.

**WHAT IS AN EMERY CUSHION?** Emery is an aluminum oxide rock, which is ground almost to a powder. It doesn't rust. It is used to sharpen and clean needles from debris (tarnish, oils from your skin, minute rust spots resulting from tiny scratches). It's a good idea to have one wherever you are using your needle. Just slide the needle in and out a couple of times. It's not for storage – that's where cushions come in.



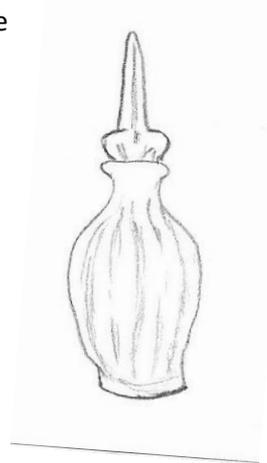
If you have stroked several times and your needle is still not as beautiful as when it emerged from the package, you will have to say good-bye to it.

Recently **walnut hulls**, which have been crushed and ground quite finely (but not to a powder), have been added to the market. These can be substituted for emery and they work well, but real emery works better. The hulls are lighter in weight, so make good pincushion fillings.

**PIN/NEEDLE CUSHIONS:** The design of pincushions through the ages is a good topic – and extensive! It is a good idea to have a place to put needles in use and to be able to easily differentiate among the sizes and shapes. Consider making little “needle-folds” for each project; just a single fold of wool felt to protect them (think of the design possibilities ☺). To mark the wool felt with the needle size, use a permanent marker with a fine tip and make dots to form the numbers, rather than try to “write” them. To keep needles, even threaded ones, under control while stitching, use one of those decorated pairs of magnets right on your canvas or frame.

There are several safe ways to put these old partners in embroidery to rest:

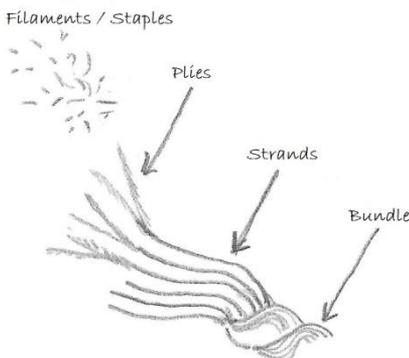
- Sink old needles into a sponge (or an old foam nail buffer) and when it is “full” wrap it securely with tape.
- Keep old needles in a pretty bottle and when it is full, slide the aligned needles onto a piece of foil, cover them with hot glue, roll the foil shut and wrap it securely with tape.
- Slip old needles into a beautiful antique salt shaker or empty perfume bottle, and when it is “full,” put the container on a shelf so you can remember the great adventures you had with them. (This could become an American version of *hari-kuyo* – the Japanese ceremony that celebrates the life and service of their needles.)



# THREAD

There are so many threads and colors that descriptions fill volumes! They come in silk, cotton, linen, rayon, wool, synthetics, and almost any shape that can be threaded through a needle. A visit to your local embroidery supplier will certainly be a rewarding experience.

**STRANDS VS. PLIES:** *Are they “strands” or are they “plies”?* The answer is “Yes.” Because there are so many variations in the design of what we call “thread,” a single definition is just not possible.



Here is a really simplified description of the manufacturing process:  
FILAMENTS (aka STAPLES) are spun into PLIES.  
PLIES are twisted into indivisible STRANDS.  
STRANDS are twisted into THREADS.  
THREADS can be twisted into BUNDLES (my word).

In answer to the question, my own conclusion is this: When the instructions say “pull one strand” or “stitch with one ply,” what they mean is to stitch with the unit of that “thread” that is not divisible. (Also see the following discussion of plying.)

The thread coming off the spool or card could be composed ...

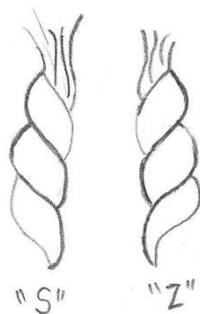
In such a manner that it cannot be divided,  
as in most threads used in canvas work.

Of several bundles each having several indivisible strands, such  
as some silks.

Of several “strands,”  
such as “6-strand embroidery floss.”

**FIBER VS. THREAD:** Fiber is what the filaments are made from, possibly cotton, silk, rayon, nylon, polyester, etc.; HOWEVER, the words are frequently interchanged.

**FIBER TWIST:** Most threads have an S-twist, which means that when the thread is allowed to hang loose, the plies of fiber form an S – the plies seem to flow from upper left to lower right. Some threads (mostly rayon threads) have a Z-twist, appearing to form a Z when hanging loose – upper right to lower left. This makes a marked difference in several stitches: stem, outline, bullions. It makes a difference



in any stitch because in the physical motion of making a stitch, the twist of the thread will either loosen or tighten; knowing how to alleviate the loss or gain in the tension of the twist creates the best appearance of the stitch. Practice makes perfect.

Experiment with continuing the **thread movement** in the same direction as the twist; clockwise for S-twist, counter-clockwise for Z-twist. Literally, anytime the thread is changing direction, make the direction follow the clock. If the type of stitch requires wrapping the thread around the needle, take care not to un-twist the thread.



*With **Z-twist threads** such as Brazilian embroidery thread, wrapped stitches such as French knots and bullions must be wrapped in a clockwise direction.*  
KS

**HOW MUCH TWIST:** The amount of twist in a thread makes a difference in the appearance of stitches and in the length of working thread. As the stitches progress, the thread will begin to look like it is un-twisting – IT COULD BE! By the unintended rotation of the needle as your fingers move it along – it just happens. SO, you must train yourself to watch what is happening and intentionally rotate the needle in the direction that maintains the twist of the fibers.



**UNWANTED TWISTS AND BENDS:** *Threads are packaged for convenience by the distributor, often resulting in unwanted twists and curls that need to be removed. The technique I favor to straighten cotton and silk thread is using a hot dry iron or hair straightener. Begin by stranding the thread, then quickly pull 4 or 5 strands at a time from beneath the iron or between the elements of the hair straightener. LK*

**NAP OF FILAMENTS:** Many fiber artists believe that threads have nap and that the nap must be considered when stitching. The nap of a thread may be found in two ways:

1. When you “tap” on the end of a thread and the strands separate easily, you are looking at the thread end that came last off the cone or reel. The other end will not separate as easily. Incidentally, some teachers call this “bloom.”
2. Examine the profile of the thread; consider the direction of the “fuzz” (the loose filament ends) to be like the feathers on an arrow – the “outside” end of the fuzz is the last off the cone.
3. The theory is that one should take the thread through the fabric “leading end first” to achieve a smooth stitch and also to alleviate wear on the thread.
4. And there are a lot of threads that have “fuzz” designed into them – it is very important to stitch these in the right direction.

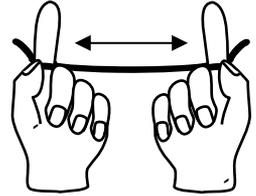
Many familiar threads are treated to remove the “fuzz,” so grain direction is not as important – but if your stitches are not as beautiful as you would like, it does bear consideration.

**WHICH END TO PUT IN THE NEEDLE:** Usually the end that shows out of the end of the wrapper that has the color number on it, which (if you care to investigate) will be coming from the **inside** of the skein. Most manufacturers suggest that you put the end where you cut from the spool or card into the eye.

**DOUBLING FUZZY THREADS:** Because of the “fuzz factor,” you should experiment when doubling a long length of thread in your needle. The filament ends being in different directions can adversely affect the appearance of the stitch.



**TAMING RAYON:** To tame rayon thread, wrap each end of a stitching length of thread around an index finger and pull your hands apart gently until you no longer feel the thread “give.” KS



**EXCESSIVE WEAR ON THREAD:**

Possible solutions for excessive wear on the embroidery thread:

Check needle for a burr or other damage to the eye.

Use a larger needle.

Use a shorter length of thread.

Some very delicate threads (like manmade metallic and embroidery ribbon) will always wear. Position the needle near the end of the tail and accept that the damaged portion of each length must be discarded. Consider couching the desired thread in place invisibly with a different, sturdier thread and sinking only the ends. KS



**SPLITTING THREAD:** For stitches that split themselves (split stitch, long and short), use single strands of thread. KS

**TOO MUCH TWIST:** Another way to alleviate an over-twisted thread is to let the needle hang free fairly often so the thread can get itself back to normal.

## HOW LONG FOR THE WORKING LENGTH?

The answer is, “It depends on...”

- The strength of the thread – if it is a relatively strong thread, the length can quite long; a weak thread, such as metallic or wool, should be cut relatively short. Think of 6-strand cotton as a mid-weight thread.
- The sheen of the thread – the appearance will be compromised by being passed through the holes many times, and/or the fibers of the thread diameter will be broken off or pulled away with each stitch (in other words, the thread becomes thin).
- The size of the area to be stitched – a long strand will get in the way and (probably) get knots and the appearance will be degraded as the thread is compromised.
- The complexity of the stitches – the more threads in a hole mean more wear on the thread.

A usually good stitching length (and easy to measure) is  
from your elbow to the needle in your hand,  
or somewhere between 12 and 23 inches.

(This is one of those “rules” made to be broken – experiment.)

**MEASURING THREAD LENGTH:** Speaking of measuring – many people pull out a yard of thread by holding the thread to their nose and pull the skein out as far as they can reach left or right – “smelling a yard.” The problem with this is that arm lengths vary, and the “yard” might not end up being 36 inches. So if the exact measurement is important (as in making a twisted cord), use a yardstick or tape measure. (It certainly doesn’t hurt to know how many inches are in that “smelled” yard, though.)

# WHY PLY? AND what does that mean, anyway?



*For better coverage always strip multi-stranded threads and reassemble the required number of strands. KS*

To obtain the best appearance of stitches using thread composed of multiple parts (6-strand cotton or 12-ply silk), the thread parts must be stripped/plied/stranded. I like to use “strip” because it denotes an action taken on a piece of thread, regardless of whether one calls the thing that is removed a strand or a ply (see **Thread**).

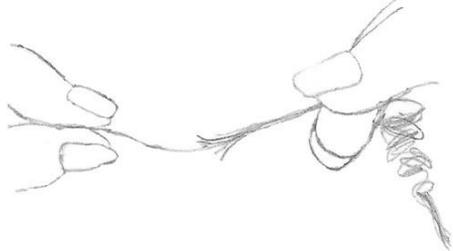
**TO STRIP A CUT OF THREAD INTO PLIES:** Tap the end of the full strand that “blooms” more than the other. Hold ONE of the plies in, say, your left hand and, with your right hand holding the strand near the separated end with a gently-firm hold, pull the single ply straight out with your left.

Ideally, the ply pulls out smoothly and the rest of the thread spirals up in

your hand but releases as you pull the end of the thread out.

Sometimes, the ply doesn’t pull out smoothly as you begin. In this case, the wise thing to do is gently work the single ply back into the strand and restart with the other end. Often, however, you can continue to let the rest of the thread spiral up in your hand, and gently bounce your hand once to release the spiral; if it still doesn’t release, find the “bottom” end and pull it gently but carefully as this is the perfect condition for a nasty gnarly knot.

--- **Bottom line:** If your pull is “ideal,” put the needle on the end in your left hand. If it’s “sometimes” or “often,” put the needle on the other end. If you are still in doubt, reverse the thread and try from the other, the “non-bloom” end.



Always pull the single strand from the thread  
NOT the thread from the single strand

**Pull one ply at a time.** Lay it out straight (as opposed to dropping it in a pile). As required, add plies to the stack. When you have the desired number, line up the ends and run the length through your fingers to straighten and blend the plies.



*To ease the folds or loops in the **thread** when using multiple strands in the needle, strip the threads and put the required number into the needle. Run the needle and thread through the canvas or fabric (in an area away from the design, of course) a few times. The threads will align themselves! MR*



### **Separating the threads and why:**

**When using 6-stranded cotton (floss) and you need three strands with which to work, you want to pull out one strand at the time. I like to go further and “wash and iron” my strands as follows. The result is a perfectly straight group of threads, without a kink or twist. It will lie beautifully above the ground fabric and can hardly be distinguished from silk.**

1. Cut your 6-stranded cotton in the length with which you wish to stitch.
2. Thoroughly dampen a piece of felt (+/- 1 square inch). Squeeze out any water just so that it is not soggy.
3. Place the last inch of the 6-stranded cotton on the felt; fold the felt around the six strands and hold them tightly wrapped with your forefinger and thumb of your left hand (right-handed people), or right hand (left-handed people). By the way, I like to call the hands smart and dumb hands; we all have one of each, whichever that is! Ok,
4. With your smart hand pull one strand out of the felt, but just before getting to the end, hold the strand taut for a few seconds; release the smart hand and between two dry fingers slowly smooth the strand all the way down. I call this washing and ironing. Now lay it down.
5. Repeat this with the next strand and the one after that. If you need more than three, keep going. No, we are not done yet!
6. Now pick up the washed and ironed strands; hold them together at one end and s l o w l y run them through two fingers again! This last method will make the strands lie nicely next to the other, no kinks, no twists, just as smooth as they can be! Wonderful for satin stitches to obtain beautiful luster and coverage.

By the way, this is something you can do while watching television. If I do a project with lots of floss (oops, misnomer!), I strip lots of floss (I did it again!) at one sitting. No, it won't crumple up again.

IA

# THREADING THE NEEDLE

**ALERT:** If the thread cannot relatively easily be placed through the eye of the needle, the solution is probably to use a bigger needle!

My favorite way to thread a needle (it works with any thread) is...

1. Fold about an inch of one end of the thread over the needle, and pull it tight.
2. Pinch this fold and withdraw the needle,
3. Holding the needle with the smaller side of the eye upward, press the needle down into the pinch and over the thread. (You might have to scoot the needle back and forth to encourage the eye to catch the loop.)
4. Carefully pull the loop of “needled thread” through the eye to release the tail. Reposition the needle on the thread and begin stitching.



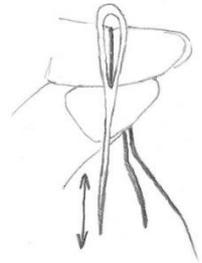
Some fibers can be poked straight through a needle’s eye. These are usually “stiffer” threads. Care must be taken to get all the plies and filaments through the eye.



Some threads allow the **MOISTENING** of the very end so it can be poked through the eye. Many don’t! If moistening is **THE ONLY** way to get the job done, make certain to just “moisten” as opposed to “dampen” or “wet” and then make sure to cut the moistened end off! Why? Whatever moisture put on the thread will first be squeezed off into the eye of the needle, to be spread through the next few inches of the thread, which will be dried off by being pulled through the fabric in the process of making the first few stitches. And let’s not even mention that little dab of lipstick that found its way onto the thread.

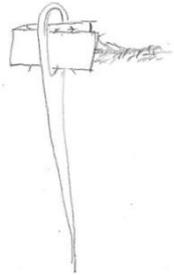
Another popular way is

1. Lay a length of thread over a finger and hold it fairly tight;
2. Hold the eye of the needle on the thread so the thread can be seen through the eye;
3. Lightly relax the tension while gently “rocking” the needle forward and back across the thread – don’t lift the needle up until the loop of thread is above the eye.



**THREADERS:** There are several different brands and types within brands, most especially made to serve particular threads and needles. When shopping for a threader, think again; shop for threaderS – plural. Consider that when using a threader, those two wires plus two widths of thread are going through that tiny slit – therefore, the size of the wires in a threader needs to be the smallest possible (but sufficiently strong to do the job).

- For fluffy threads, cut a small strip of paper (thin to medium weight) a bit less than the width of the needle eye to be threaded and about 1-1/2” long; fold in half vertically. Tuck one end of the thread into the fold and run the fold through the eye – it will carry the thread through quite nicely.



Not all movement of thread is THROUGH the fabric. Often one or the other or both of the ends of a working thread is secured to the fabric by having the design stitches cover a “laid-in” end. And sometimes you just get carried away stitching and discover that thread length is too short to use the needle to run it through. A few (mostly private) manufacturers have lengthened the wires of a threader so that the wires can be maneuvered through a few existing stitches, pick up the short working thread end, and pull it out behind those stitches. It often has a separate tool with a hook on the end to facilitate grabbing that short end and pulling it between the wires.

In goldwork, threads are often laid on the surface of the fabric and “couched.” The laid threads have ends, too, which must be “sunk” into the fabric. The best way is to use a large needle to literally pull the (usually thick) thread through to the back where they can be secured to the fabric with silk threads “couching” it down on the backside, using the backsides of the surface couching threads as a foundation (which is a long way of saying that the threads that couch the tail down should never disrupt the surface).

The exciting metallic and synthetic threads can pose a problem, not with getting the thread into the eye, but keeping it in the eye.

- One easy solution is to double a short length (maybe 4”) and slip the loop into the eye and run the full length PLUS the 4” tail through the loop (similar to the loop method of securing the thread in the fabric).



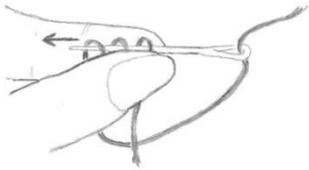
- Another solution could be to change to a needle with a smaller eye, such as an embroidery or crewel. These are sharp needles and care should be taken NOT to pierce metallic and synthetic threads. In some cases, consider using a ball point sewing needle – it has a straight shaft with a small eye.

# SECURING THE THREAD

## — before ...

Among the “firsts” is that the thread for whatever project using whatever stitches, needs to be secure right from the beginning. This task must be done so that the securing does not interfere with the finishing of the project. A picture that will be mounted on foam core doesn’t benefit from a bunch of bumps over big knots on the backside. A reversible wall hanging or bookmark is not usually enhanced by big lengths of thread run under several otherwise beautiful stitches. So, you could say that the method of securing the thread depends quite a bit on the thread, the fabric, and the stitches; therefore, it’s a good idea to know several ways to make knots.

Regardless of what method you use, the thread must be secure under the stitching. If the thread is slippery, you might want to make a backstitch over one thread before you proceed, or weave it around the backs of previous stitches. Always try to avoid BULK.

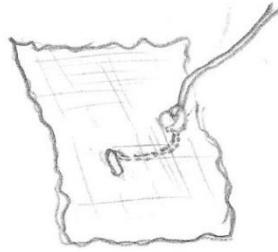


**QUILTERS’ KNOT:** After threading the needle, pull the thread through several inches. With the needle held with the thumb and forefinger in your right hand, sharp end pointed to the left, bring the end of the thread clockwise into a loop and hold at the needle using the forefinger against your thumb. With your left hand, wrap the thread around the needle two or three times (depends on the size of the thread vs. the weave of the fabric), holding it firmly. Pinch the wound thread and needle with left thumb and forefinger (tuck the loose end of the thread into the pinch). With right hand, pull the needle through while the left is still pinching the wraps, to the end of the thread.

**OVERHAND KNOT:** After threading the needle, tie a simple overhand knot in the end. But then what...?

**AWAY WASTE KNOT:** After tying an overhand knot, insert the needle from the right side of the fabric into an area outside the design area and carry it on the back of the fabric into the design area so that subsequent stitching will cover the thread securely.

The knot can be placed in such a way that the design stitches cover about an inch. Or the knot can be given a **lengthy tail (3-4 inches!)**, the knot clipped off and the tail placed in a needle to be worked into the completed stitches.



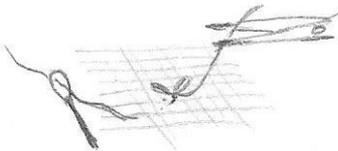
**NOT-SO-FAR-AWAY WASTE KNOT:** After tying a knot, insert the needle in the same row as the thread will be stitched, but about 1½ inches ahead. After covering the thread about an inch, clip the knot off. Be careful that the next stitches don't pull the cut-off end of thread to the front of the work.



**COVERED THREAD:** Do not tie a knot, but lay about an inch of the thread on the back along the row you will be stitching immediately and, holding this "tail" carefully, stitch over it. This is the same as the not-so-far-away knot but without the knot.

**INVISIBLE SECURE:** Make an away knot, but run the stitching thread through the FABRIC threads after the stitching is complete. This takes a really sharp thin needle, and can work for canvas as well as linen.

**Did you notice that the overhand knot is always clipped off?**



**TINY STITCHES:** In surface embroidery make two tiny stitches perpendicular to each other in an area that will be covered with the design stitches.

## How To Tie A Slip - Knot.

This alternative to an "away waste knot" for anchoring your thread before stitching, is the same knot used to cast on for knitting and for bundling cut threads. When enough stitching has been established, pull the loose thread and you will have enough to secure the thread on the wrong side.

### For Left-Handers.

Holding the left end of the thread in your left hand, wrap it around your right forefinger as shown in Diag. 1. This is crucial because, if tied in the right end, the knot will not "lock" and will come undone!

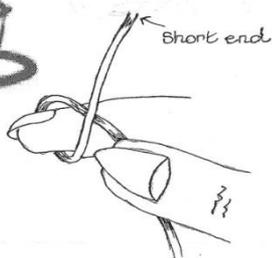
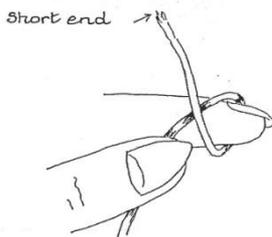


Diagram 1.

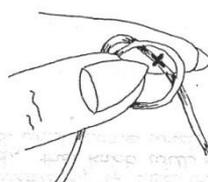
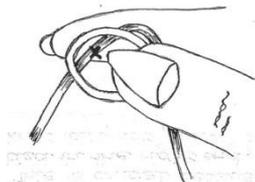
### For Right-Handers.

Holding the right end of the thread in your right hand, wrap it around your left forefinger, as shown in Diag. 1. This is crucial because, if tied in the left end, the knot will not "lock" and will come undone!

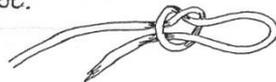
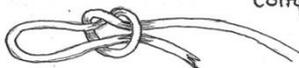


Slip the loop off your finger and pass the short end behind it to produce a "pretzel." Pick up the thread marked X with your needle and pull it through (but not completely!), to form a slip-knot.

Diagram 2.



Completed Knot.



*Instead of cutting this knot off, you pull the short end; the loop shortens right through the knot.*

*The big advantage of this knot is that you don't lose any thread.*

MS

*This sketch was used by permission of Marion Scoular.*



**Starting and Stopping Threads:** *If working Klosters in Hardanger, blanket stitch or satin stitches and where possible in pulled stitches, I start with an away waste knot. When changing to a new thread, the old thread goes forward in your stitching direction (and will be worked over); the new thread starts behind the previous stitches. This keeps your tension even. At the end of your stitching, cut the knot; in Klosters the thread goes behind the last stitches made. The same goes for satin or blanket stitches if worked in the round; otherwise, the end goes behind the first stitches. JAB*



*Knots are used to start and end thread for Brazilian dimensional embroidery and smocking. KS*

## ... and after

**RUNNING THROUGH:** Usually you can run the threaded needle for about an inch behind the stitches on the back of the fabric. Sometimes if the thread is thin or slippery, you might want to make a loop around a thread before tucking some more of the tail in.

**WRAPPING:** An almost invisible method involves “wrapping” the thread through some of the backsides of stitches – the same way you would wrap on the front!

**TINY STITCHES:** Take tiny perpendicular stitches in the fabric, as you did to start, in the area just covered. Always make certain that the securing job is not visible on the front!

**INVISIBLE SECURE:** Same procedure as starting out: make an away knot, but hide the thread through the FABRIC threads.

Many embroiderers stitch all the way to the last inch of thread, which leaves a bit of a problem with securing. There are commercial tools to deal with this – similar to a wire needle threader, but with a longer wire.

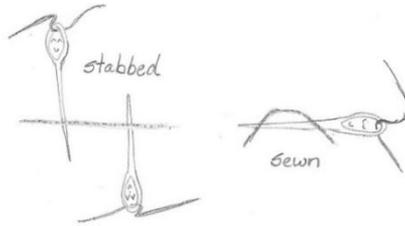
You can also make your own “thread-grabber” with this method:

1. Thread a needle with about 12” of another thread such that a loop is coming out the eye.
2. Carefully run the needle through a few stitches on the back entering right at the location of the short bit of design thread.
3. When the loop is near the design thread, bring the design thread through the loop as far as possible.
4. Pull the needle and its lassoed thread as well as its own tail through the stitches. Trim the excess, if there is any!



# MAKING STITCHES

There are two motions to use in embroidery: **sewing or stabbing**. A “sewing” motion indicates that the hand has caused the needle to go into and come out of the fabric in one motion. A “stabbing” motion indicates that the hand has caused the needle to go down, then be brought back to the surface in two movements. The sewing motion is usually held “in hand,” but can be held loosely in a hoop. The stabbing motion can be in a hoop, or on rods or in a frame – or in hand.



**ANGLE VS. VERTICAL:** The difference between the two motions is the placement of the thread in relation to the surface of the fabric. Generally speaking, the sewing motion causes the needle to go into and come out of the fabric at an angle, which can affect the appearance of the stitches. The stabbing motion goes straight in and comes straight out. The stitches really do look different.

In cross stitch, there are two methods: Danish and English. Danish makes all the first diagonals in a row, then returns to the beginning making the second diagonals. English crosses each diagonal before moving to the next.

Whether to cross right-over-left  or left-over-right  is a matter of preference – but choose a direction and **stick with it**.



*Be mindful of your emotional state in order to regulate stitch tension. You want each stitch to lie gently on the fabric without pulling the weave out of alignment. If you are angry or excited, stitch a little more carefully. The emotions can cause you to pull stitches too tightly. LS*

There are five categories of stitches:

Flat Stitches – Straight from beginning to end and lie virtually flat against the fabric. For example: straight or stroke; satin, padded satin; long and short; backstitch and variations; stem, outline, split, and variations; running and variations; darning; seeding; arrowhead, chevron, fern;

Crossed Stitches – One leg of the two stitches crosses over the first. For example: Rhodes, Algerian eye, herringbone, ermine, sheaf, fishbone, leaf;

Looped Stitches – At least one portion of the stitch is curved. For example: blanket, buttonhole, and variations; Cretan, fly, feather and variations; loop, Van Dyke, rope; interlaced bands, braids; chain and variations.

Knotted Stitches – The finishing movement of the stitch passes through a closed loop. For example: French, colonial, Chinese, four-legged, coral, Palestrina, pearl, Basque, bullion; other stitches that have a knotted element added.

Composite Stitches – Elements from other categories used together. For example: woven or whipped spider webs; queen, tied stitches, couched filling; many canvas embroidery “stitches.”



***When you make a stitch that you don't like, take it out RIGHT THEN! LS***

Know the stitches associated with whatever method you will be using. Your teacher may show you another way to get the same stitch; do try her way – it may suit you better – or show you how to make it prettier!

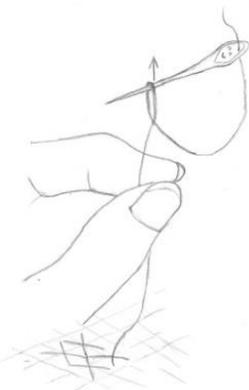
**How long is a “stitching length”?** It would be so convenient if the instructions told the stitcher exactly the length of thread to put in the needle for so many of a certain type of stitches, but so many factors influence that length that it's virtually impossible (see **Threads**). You just have to pay attention to what you are doing.

Learn how to tie on and tie off as invisibly as possible.

**Handling that annoying slip knot that magically (or should I say, diabolically) appears in the thread:**

**appears in the thread:** Hold the thread that comes out of the fabric, put the needle through the loop with the needle, and pull gently. Its appearance can often be eliminated by occasionally allowing the needle to hang free and the thread to relax its twist. NEVER YANK ON IT! Sometimes it is actually a doubled-up slip knot, which requires careful attention. Some threads are just prone to “knotting up;” the “cure” is the same, just substitute “frequently” for

“occasionally”. Sometimes you can forestall these knots: cut stitching lengths of the thread and lightly dampen them (with water) and allow to dry flat, or “press” them very lightly.



**THE SINGLE  
MOST IMPORTANT FACTOR  
IN MAKING STITCHES  
IS THAT  
THEY END UP BEAUTIFUL!**

**When the thread STARTS to lose its sheen,  
or when it STARTS to get thin,  
or when it STARTS to lose its twist  
- tie it off and continue with a fresh one.**

To fill large areas of canvaswork, the basketweave stitch is preferable to tent stitch or continental stitch because it does not cause as much distortion in the canvas.

!!!!!! If you should happen to WHEN you prick your finger enough to draw blood, place a drop of YOUR OWN saliva on the stain and dab with a cotton swab until it appears clean. Note that a bit of stain might remain. Never wash it with hot water! You might try a bit of an enzyme cleaner, but only a bit.



To ease the folds or loops in **ribbon**, run the ribbon under a heated iron once or twice, or a round smooth curling iron, or a mini flat iron. This will save time and produces a very superior result without the kinks in the ribbon. MR

(This works for metallic threads coming off a spool, too!)



In **blackwork** I like to do the outline (no matter what stitch is used) of a shape first and then work the compensation stitches into this outline. This way the outline can remain smooth and tidy. If the outline stitches are put in last, then oftentimes compensation stitches will have to be put in afterwards. SKW



To avoid a “fat bottom” **bullion** stitch, ensure the first wrap rests against the ground fabric. KS



When you are doing **double-running**, sometimes the only way to get a thread to stay where it belongs at a corner is to pierce it on the return journey. CSW

**Satin Stitch hints:** There are three (3) types of **satin stitches**:



1. Diagonal satin stitch (either right- or left-leaning).
2. Vertical satin stitch.
3. Horizontal. MK

One way to encourage threads to lie parallel to each other is to periodically slide the needle all the way to the fabric and gently separate the threads.



### **Hints for improving Satin Stitches:**

- *Make longer stitches.*
- *Maintain the correct angle of the stitch. If you have trouble with angle: Use an artist's mechanical pencil to mark the angle.*
- *Begin in the center of a motif and mark the angle, then stitch one direction then go back to center and stitch the other direction.*
- *Keep your threads smooth. Use your favorite laying tool to keep the strands flat and smooth against the ground fabric. MK*



### **Couching hints:**

- *Maintain tension on the thread you are couching.*
- *In general couching, you want to keep your small couching stitches at an equal distance. Use a ruler or make a template from card stock, quilter's acetate sheets, etc.*
- *Always keep a see-through 6-inch ruler near your stitching. (They can be found in art supply stores and on the web for less than \$2.00.)*
- *When stitching Japan thread or a passing thread in place, use the same color thread as the color of the threads you are laying. Use gray or white for silver, gold for gold threads.*
- *Wax the silk couching thread with beeswax; but do not wax silk floss.*
- *When stitching Japan thread in place, you also can use the outer metal wrap as your guide to stitching the metal in place. Stitch every other wrap. You want to leave as much of the laid thread covering showing as possible. Too many stitches make it look dull.*
- *There are times you will cover more of the couched thread, but that is another lesson, not usually for the beginner. MK*

**LAYING TOOL:** The best way to achieve a beautifully smooth stitch is to use a laying tool. (See the TOOL page). Use even helps maintain an even twist when stitching with one strand. It enables YOU to decide exactly where the thread will meet the fabric. It's also good at helping to straighten out a crooked thread already in place.



*When making a five-petal flower, embroider the first three stitches in a Y formation and then stitch the final two stitches in the two open areas.* KS



(Excellent for making stars, too!)



*Covering wire: In stumpwork, or any time a wire is stitched over, first cover the wire using a permanent marker with the color of the stitching thread. The silver wire or the white covered wire will not show through.* JAB



*Any time you are stitching with multiple strands in the needle, these strands MUST be laid! That means equivalent to each other, not crowded into the fabric holes and just as smooth as possible.* ML

Consider this when stitching patterns with separated elements – like alphabets on samplers, or a verse, or even isolated stitch elements – and the fabric is such that any threads carried from one element to another will be seen from the front. Cut a piece of fine muslin in a similar color to and the size of your fabric and baste them together before putting in the hoop or frame. To baste, run long stitches of sewing thread across the center vertically and horizontally (a grid), and if necessary, a few in between. When placing in the hoop or frame, be very particular to have both fabrics lying perfectly flat. Note that while this does add bulk to your piece, it may be preferable to having the threads show through.



***Making a mistake when counting on Congress cloth:*** Be aware that the needle will leave a mark everywhere it came through. Take the tip of the needle and poke it through all adjacent holes to camouflage the original mark. Moisten the tip with a drop of water if necessary, and then let it dry before resuming stitching. MR



***If a thread that was removed left lint or color behind:*** Thread white wool into a needle and take it through the offending spot top to bottom a few times, until the mark is no longer visible. You may have to do this several times or use more wool in the needle to have the rough wool pick up the offending color. MR

When stitching with **WOOL**, the ideal tension is slightly less than for other threads. Wool threads should be used on fabrics that have similar care requirements.

Thread length of **WOOL** should be short – it is rather more delicate than cotton. Wool threads definitely need to be gently escorted through large holes to avoid excess wear, so take care when choosing a needle.



***When finishing a stitching session, thread the needle for the next section and mark your place in the instructions or on the graph. Makes it easy to start the next session.*** LS

If it becomes necessary (or desirable) to temporarily remove the needle from the thread, **bring the thread to the front** in a direction that avoids getting caught up future stitches, remove the needle, and place the loose thread end off to the side of your work. If it will be there a while, lightly secure it.

# FINISHING

**AAH! FINISHED!** Not quite... go to a different room to take another look at the piece. Turn it top to bottom, and look for unruly threads.



*When all the stitching is done, take the time to hold your project up to a light or against a window so you can see if there are any missing stitches – or parts. Better to fix them now than after your expensive framing job is completed. ML*

**WASHING:** Examine to make certain the piece is clean. If fabric and/or threads are not color-fast, consider a trip to the dry cleaner. Silk fabric often hides its “dirt,” so cleanliness bordering on obsessive when stitching is a good idea.

**WASHING: SOAP is a dirty word.** Whether the finished embroidery needs to be cleaned of hand oil, or dust, or blood, it should never be subjected to SOAP, which inevitably contains products that will degrade your work. Shaved Ivory®, Ivory Snow, Orvis® Paste, and Dreft® washing powder are all good to use. There are other products developed specifically to wash gently. Read the ingredients.

**WASHING:** When washing the piece, use lukewarm water. DO NOT scrub, but gently move the fabric around in the basin. DON'T wring it out! Rinse in clear water – demineralized is a good idea because the liquid part of the water will go away, the minerals won't. Rinse until the water is clear enough that you would drink it. Lay the piece on a clean COTTON towel, preferably a color similar to the fabric, and smooth it out. Then roll up the towel and gently squeeze the excess water out – DON'T twist it! If necessary, repeat the rolling process with another towel. Then lay the piece out on a non-wood or non-metal surface away from direct sunlight (which is to say, NOT out in the sun). An idea to consider is laying it out on a mesh sweater-drying rack.

**RUNNING DYES:** If during the washing process some dye should happen to run, hold your work face-up with the stained area right under the tap and let the water do the work of diluting. But lay the work face-down on a towel and keep it flat while it dries!

**BALLPOINT PEN INK** can be removed by dampening a soft cloth (not a tissue) with hair spray and blotting the area until it disappears – work carefully. Rinse with clear water.

**PRESSING** is very necessary, even if the piece does not seem to need washing. It makes a tremendous difference in the appearance of the embroidery. To avoid mashing the stitches flat, press (rather than “iron”) face down on a thick pressing pad or terry-cloth towel. A pressing pad can be made of several layers of fabric such as flannelette.

**PRESSING:** Some designers say not to press silk, others feel steam-pressing enhances the sheen of the thread.



*Pad the ironing board with several layers of soft toweling and place embroidery face down before pressing. KS*

**HEIRLOOMS:** If you intend for your linen piece to become a family heirloom, you need to take some extra special care of the fabric BEFORE you stitch as well as AFTER you have finished. And there are some strong suggestions about how the needlework is best handled if the item will be curated. Your framer or needlework shop owner is a good source for advice.

**FRAMING:** Framing is highly personal and should be given as much thought as is given to what it is going to frame. A professional framer will be delighted to teach you how to choose a frame, whether to choose a mat, and what kind of glass (if any) should be used.

**LACING:** It is wise to learn how to lace your embroidered piece for framing. Not all framers are good lacers; in fact, many will actually use tape (it may be acid-free, but it still has sticky stuff on it). Some use brass straight pins; some use staples. Some will not be as conscientious about keeping the fabric straight as you would be yourself. If at all possible, learn from an experienced embroidery teacher how to perform this task yourself.

**Why not use tape or pins or staples?** Because...

- tape will leave a residue that degrades the fabric;
- pins and staples will very likely have damaged the fabric threads,
- and both may rust, which destroys fabric.

**FILLING A DIMENSIONAL PIECE:** A filling or stuffing can be almost anything – polyester, wool roving, bamboo, crushed walnut hulls, wadded paper, pellets, BBs – you get the picture. It’s not a good idea to fill with things that attract critters.

Do remember that, generally speaking, the piece should be filled to the point of being “firm,” even to the point of starting to be actually “hard.” You might find that “backing” the embroidery with a muslin is wise to maintain the dimensions of the work.

A chopstick is a great tool for getting into small places, and a kebab skewer works well for getting the filling right into a tight corner. There are some tools specifically made to aid in filling.

If you are making **an object that will hold a separate object filled** with emery or sand or crushed walnut hulls or such, make the filled object slightly smaller than the main object. Fill it almost to the brim, put it inside the main object, and fill it some more. Then begin to stitch the inner object opening closed, but before you finish make certain you have either not filled it enough or filled it too much; make any required adjustments, and finish the main object.

**TWISTED CORD** can be used in a myriad of ways. And twisted cord can take on many different looks – it all depends on you! There are a few “rules” to get started. Once you have determined what the cord should look like (experimentation is the key here), you can estimate the length you will need, and multiply that approximately four times– so measure for five. If your cord is thick, you might need even more.

When designing your cord, lay out a yard of each of the threads you will use, twist them together, and fold them in half. You will get a good idea of how much finished length you will get. Always add extra for the knots that hold the threads together for twisting, or at the top of an ornament, and for the ends that don’t get twisted “properly.” Remember, it is far, far more satisfying to have too much cord than not enough!

Get a good “winder” that can take the stress of winding tightly. I have my grandfather’s hand drill with a cup hook in the chuck – it’s heavy, but it can take a lot of stress.

Remember to observe the direction of the thread’s “natural” twist!



*When you are TWISTING CORD, first twist one way and then as you fold the cord in half, keep it under tension until **you twist it back on itself**. This eliminates knots in the cord. CSW*

**TASSELS:** Many books have been written about making tassels. After making a tassel of 6-strand cotton, or silk floss, dampening the strands of the skirt will encourage them to hang straight. Use a wide toothed comb to untangle the skirt of a tassel.

Always make the length of the tassel about a fourth again as long as you want the finished tassel to be; this allows for the “bulge” of the crown, and the waste from cutting the thread evenly at the bottom.

**GLUE:** Let's face it, at some point in time you are going to need to put something together with ... glue. I don't need to tell you that there are thousands of kinds of glue. There is a reason for all these kinds – there are as many different needs. However, you have spent hours of your time stitching something and you don't need to ruin it at the end by using a type of glue that is not ideal for your project. So, when you are shopping for glue, READ THE LABEL, do some research if necessary, and always use the right glue. The one common denominator is that the glue be “archival” or “acid-free” or some such name.

When you are gluing, use as little as possible (just enough to do the job). When gluing flat surfaces together (say you've covered a piece of mat board with your stitched piece and another with a fabric to put together for an ornament), let them dry under the weight of a couple of heavy books – no kidding (you may not be able to see the warp, but it will show up – believe me). When you take the books off, feel the object to make certain the glue has had time to get completely dry; if it's not dry, put the books back on for a while.

# BEYOND FINISHING

**“DUSTING” EMBROIDERY:** Before trying this method, be absolutely certain that all decorative attachments (beads, buttons, etc.) are secure! Purchase a square of nylon window screen “fabric” and tightly mount it on a frame (stretcher bars work well). Set this screen on top of your embroidery and **carefully** vacuum through it. You also can use a commercial framed window screen, but be sure to tape up any rough corners.

**STORING EMBROIDERY:** Gently wrap each piece of embroidery in acid-free tissue paper and place in an area where air can circulate – NOT in a plastic bag or bin. A natural insect repellent can be added to the container but make certain it will not actually touch the embroidery. Don’t be tempted to use plastic foam between pieces either – if you want padding, use several pieces of tissue paper.

**AVOID STRONG LIGHT SOURCES:** All embroidery should be placed where it will not be exposed to full sunlight or strong artificial light as these WILL cause fading of threads and fabric.

**WATER:** Humidity is a major concern. Consult your local framer about how to handle this potential tragedy to your work.

**LIFE:** Periodically check your pieces over.

- Look for “fuzzy” areas under the glass – these could be condensation, but they could also be mold.
- Look for fading of colors – move the piece, now.
- Look for threads that may have deteriorated – fix them, now.
- Look for subtle “wrinkles” that may be the result of something gone wrong with the mounting.
- Look for twisted cord or seams or other embellishments that may have come loose – fix them, now.

**HISTORY:** Make a record of your work, especially if it is not going to remain in your possession.

- Mark thread changes on the pattern.
- Keep any graphs or drawings of design changes.
- Record on the pattern the dates the piece was started and finished.
- Make a note of the reason you made this piece.
- Record any awards the piece received.
- Take a photo of the finished piece.

# BIBLIOGRAPHY

These are some of the books in my library. Over the years, I've found wonderful basics and hints from old embroidery pamphlets as well as bound books. Instruction books are by no means the only sources for learning and picking up hints. Who isn't inspired by looking at photos of superb needlework in a "coffee table" book? *Needle Arts* magazine (EGA USA), *Inspirations*, *Piecework*, and *Just Cross Stitch*, and *Sampler and Antique Needlework Quarterly* (no longer in print) are just some of the magazines from which I have gleaned tips for my work; there are thousands. But as good as they all are, I have found that learning from a teacher has no equal. Embroidery is one of those arts where it's helpful to watch someone's hands actually doing the task, or to have someone watching and guiding you as you take a stab (some puns are useful). EGA National and Regional seminars exist to provide "in-person" education to EGA members. Chapters, too, are vital to learning how to make embroideries as beautiful as possible – you just never know when you are going to have an "AHA" moment!

**GREAT NEWS! Books marked with an asterisk \* are available to EGA members through the Lending Library at EGA headquarters – which has even more!**

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# THE EXPERTS

These are the teachers and designers who have contributed their wonderful EXPERT ADVICE (the T.E.A.s). Many thanks are due to these fine people for their contributions and for their willingness to share their expertise both here and in EGA seminars, National and Regional -- and there are many more!

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LC – Luan Callery

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RC – Roberta (Bobby) Chase

CAH – Carol Algie Higginbotham

JJ – Judy Jeroy

LK – Lois Kershner

MK – Margaret Kinsey

ML – Mary Long

MR – Michelle Roberts

KS – Kim Sanders

MS – Marion Scoular

LS - Laura Smith

CW – Carolyn Webb

SKW – Shirley Kay

Wolfersperger

At the top of my “people I learned from” list are the members, past and present, of my home chapter, Permian Basin Needle Arts in Midland, Texas.

I do hope these pages have been helpful. Let them inspire you to search out **(and try)** more hints and tips and basic instructions. As I said, these are some of what I have found useful; your hands quite probably operate differently from mine.

Remember: no one cannot learn.

With learning comes practice,  
and with practice comes improvement.  
Also remember: no one cannot improve.

Enjoy Embroidering!

*Pat*

