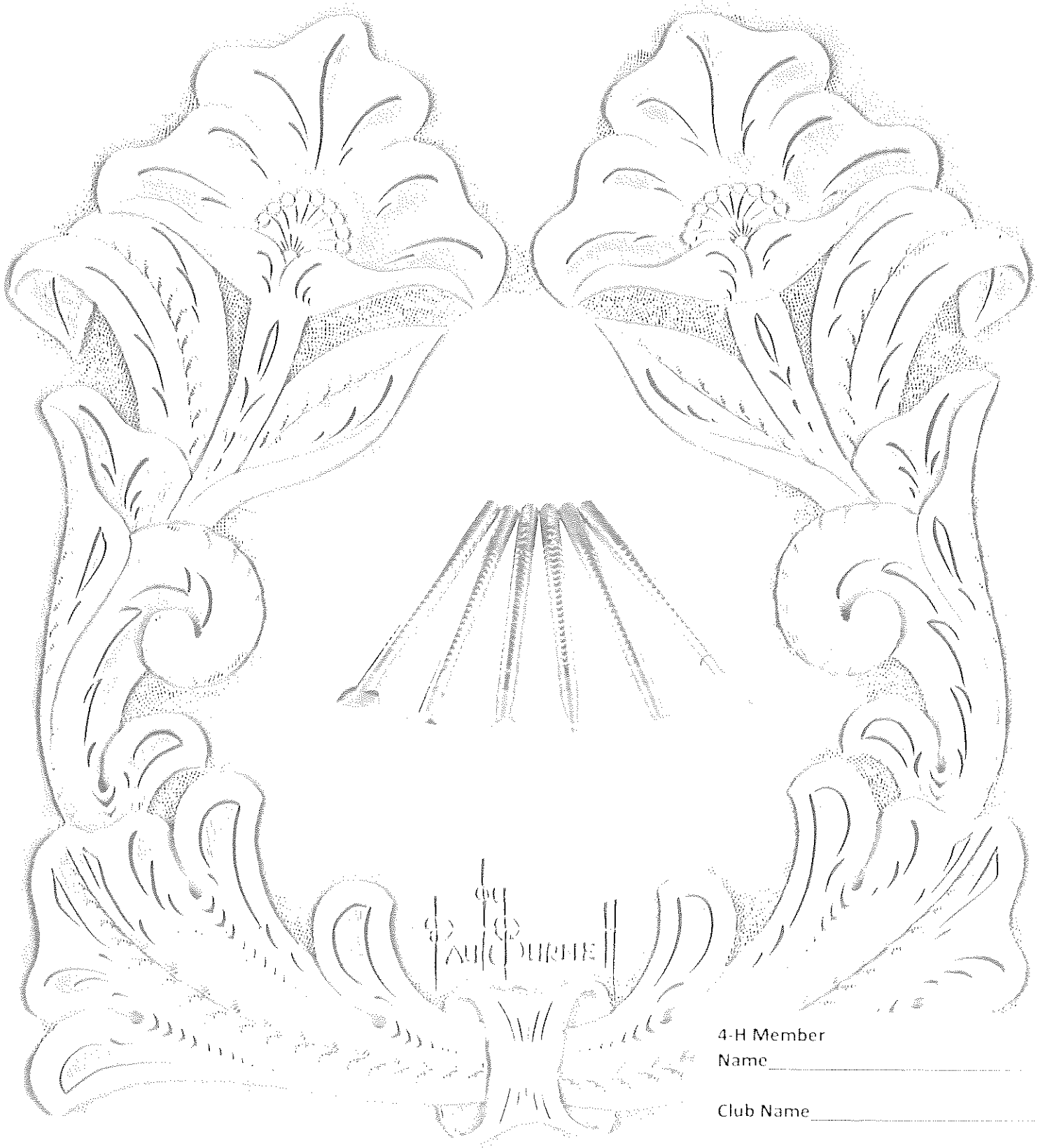


Basic Leatherwork



4-H Member
Name _____

Club Name _____

Introduction to LEATHER CARVING

LEATHER. No other raw material combines quality and utility so perfectly. From the beginning of civilization, leather has been used to enrich man's surroundings and to serve him in a hundred different ways. Besides its practical and functional uses, leather is perhaps one of the most versatile art mediums known to man. It can be molded and shaped, decorated with tools, burned and colored. It can be made hard and rigid or soft and subtle. No matter what your artistic interests, you'll find many creative ways to use leather.

Leather is almost entirely a by-product of the meat packing industry. The skins used by the tanneries come, with a few exceptions, from the animals which have been sent to the meat packing plants. Among the skins used are cow, pig and sheep. Although many different types of skins are available, these three represent the majority of the total leather production in the United States.

Leather is generally divided into two categories: chrome-tanned and vegetable-tanned. Chrome leathers are used for garments, linings, shoe uppers and ladies and mens accessories among other things. Vegetable leathers are used for belting, saddles, harnesses, soles for shoes and sandals and many types of bags and cases. Vegetable-tanned leather is the only kind of leather that can be hand tooled.

Carving and tooling is perhaps the best known means of decorating leather. For many centuries the working of leather had been a closely guarded secret of the leather working guilds. Knowledge was handed down from father to son and membership in the guilds was limited to a select few. With the coming of the Spaniards to the New World, bringing with them their horses and saddles, new horizons were opened to the craftsmen of the old world as their artistic talents soon turned to the floral patterns they saw all around them rather than continuing with the intricate geometric patterns dating back to medieval times.

From this beginning, the leather crafter of today can produce many practical and beautiful articles by incorporating the patterns and designs used by ancient craftsmen with the latest tools and techniques of modern day artists and craftsmen.

We hope you will enjoy your adventure into the world of leathercraft. As you become more proficient with each project you complete, we are sure you will realize that leather is truly a timeless craft.

PREPARING THE LEATHER FOR CARVING

Tooling leather must be moistened with water in order to transfer and tool the pattern. This is sometimes called "casing", but mostly it is just referred to as "wetting the leather". The big question is: how wet is wet? Mostly it is something that you will have to discover for yourself. I can only give you a few things to watch for until you discover a "feel" for when your leather is properly moistened.

The error most beginners make is in not wetting the leather enough to get the moisture to the core of the leather, so make sure you have sufficient water in the sponge. Remember that thin leather does not require very much water. Squeeze the sponge only lightly just to keep it from dripping water but do not wring it.

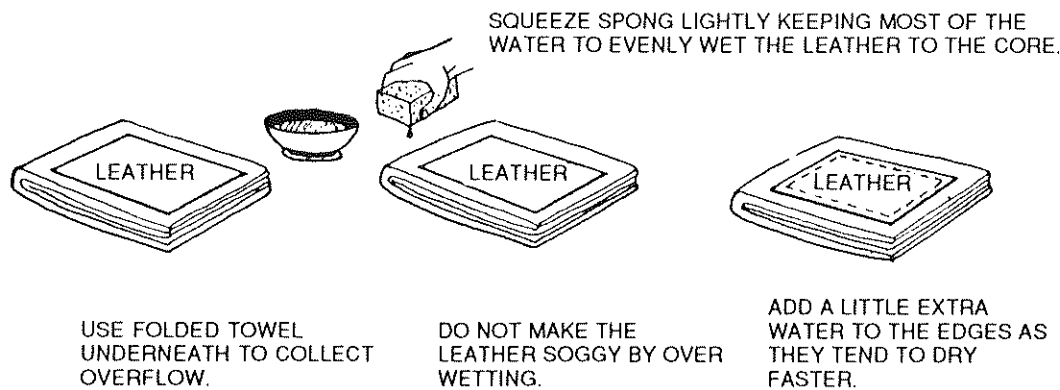
Of course another problem would be just the opposite - getting the leather too wet. You do not want the leather to get wet completely through or become soggy.

Another error is made by starting to work on a piece of leather too soon after wetting. You must wait until the top grain has started to come back to its natural color.

What works best for most is to wet the leather as shown below, cover it immediately with the plastic tracing film with the layout pattern on it. Transfer the pattern to the leather. I find that by the time the transfer procedure is completed the leather is just right to begin work. If it is still too wet you probably used too much water. If the leather has started to dry out, you probably used too little water.

Remember, what is essential is to have moisture in the core of the leather, and the top grain close to its natural color but not dry. This describes a properly prepared leather piece ready for tooling.

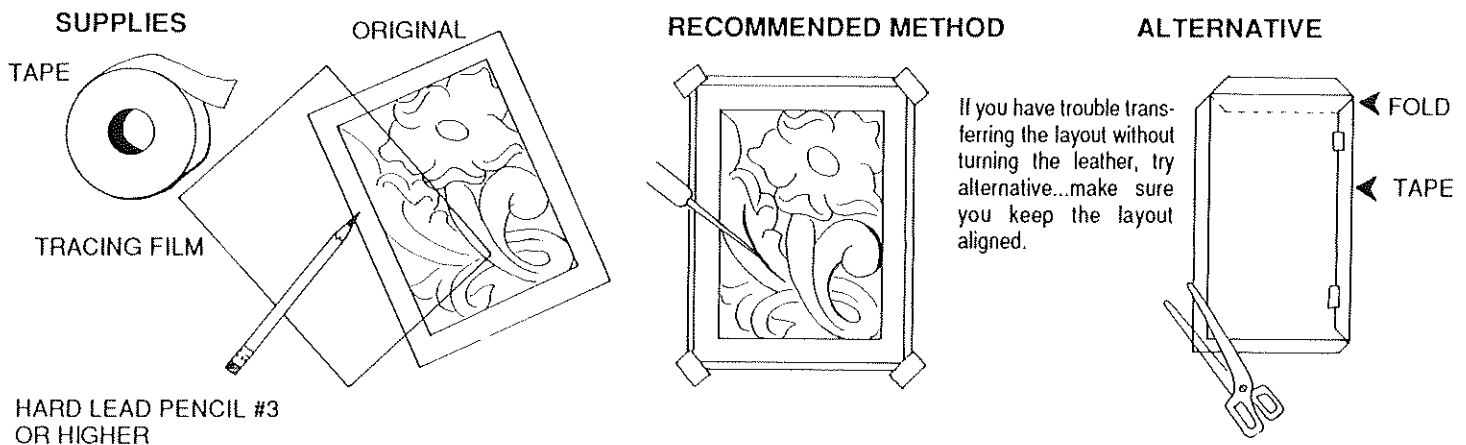
"QUICK-CASING"



KEEP THE CORE MOIST

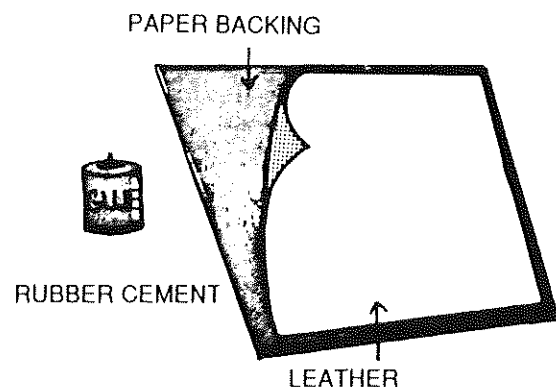
AS THE TOP GRAIN DRIES, IT MAY BECOME NECESSARY TO RE-MOISTEN IT. DON'T WAIT UNTIL THE CORE DRIES TO DO THIS. YOU SAVE TIME BY KEEPING YOUR LEATHER RIGHT. WRING OUT SPONGE SLIGHTLY TO AVOID OVERWETTING. LET THE TOP GRAIN RETURN TO THE MOISTURE CONTENT REQUIRED FOR THE JOB YOU'RE DOING.

TRANSFERRING THE LAYOUT TO LEATHER



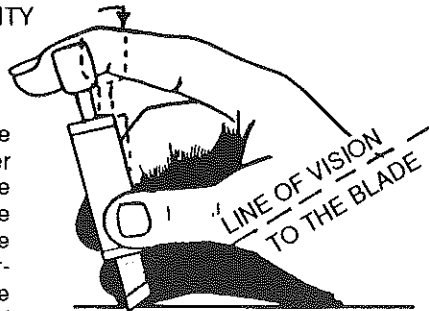
PREVENT LEATHER STRETCH

Leather projects cut from lighter weight leather that require close alignment with edges and lacing holes will require special handling to prevent the leather from stretching. To accomplish this, apply a coat of rubber cement to the rough side of the leather and to a piece of cardboard or heavy brown paper. When the cement is dry, adhere the two pieces together. Case (moisten) your leather and carve and tool the design. When you have finished tooling the leather, peel the cardboard or paper from the back. NOTE: A light coat of clear finish to the cardboard or paper prior to cementing will make it much easier to remove after tooling.



HOW TO HOLD THE CARVING KNIFE

MAXIMUM LIMIT FOR
GOOD VISIBILITY



The swivel knife is held with the yoke leaning away from the user with the forefinger resting on the yoke as shown. Do not lean the knife to the right or the left while cutting. This will cause "undercutting". Poor visibility to the blade is the most common cause of undercutting. For good visibility to the blade do not place the yoke behind the first joint of the index finger. For maximum control and visibility always pull the knife towards your body. Downward pressure is applied with the whole hand, not the index finger that rests on the yoke.

UNDERCUTTING

FRONT VIEW OF KNIFE BLADE

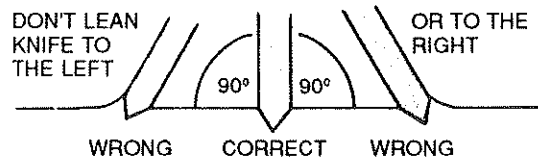
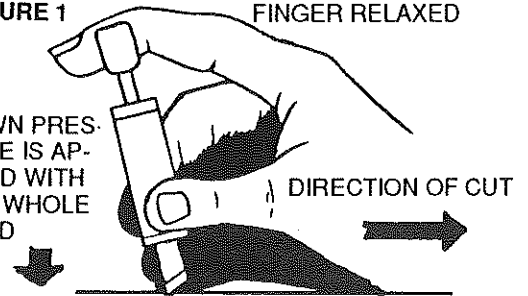


FIGURE 1

KEEP THIS
FINGER RELAXED

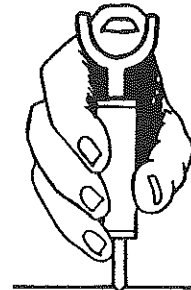
DOWN PRES-
SURE IS AP-
PLIED WITH
THE WHOLE
HAND



THE BARREL IS TURNED WITH
THUMB, 2ND AND 3RD FINGERS

FIGURE 2

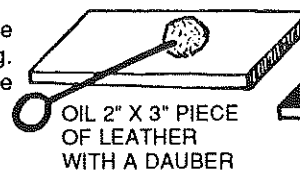
The point of the blade is not adequate support (Figure 2). Keep the wrist and forearm on the work surface as shown in Figure 1 to prevent wobble and tension.



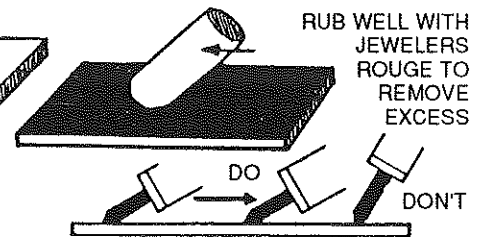
HOW TO MAKE A POLISHING STROP

The first thing you will need to make is a strop to keep your blade polished. A polished blade cuts smoothly and easily, without drag. Consider this strop as part of your knife. Strop your blade often while cutting your pattern in the leather.

MAKE THIS STROP - CONSIDER IT AS PART OF YOUR
KNIFE

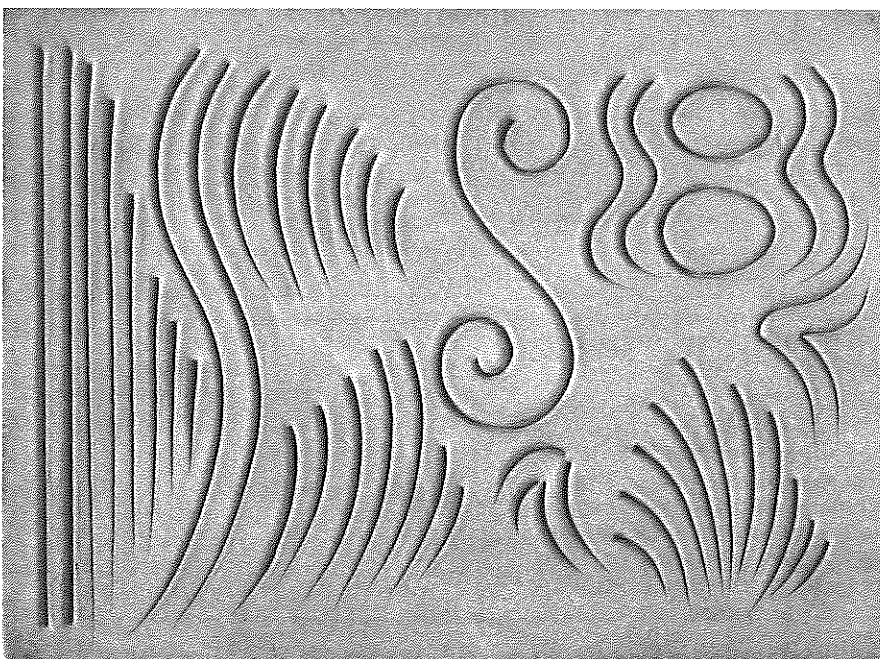


STROP OFTEN
DURING CUTTING
OPERATIONS!!!



KEEP KNIFE AT THE CORRECT ANGLE AS
YOU STROP. DON'T PULL UP AT THE END.

PRACTICE PIECE ONE



Your kit contains a practice piece for you to practice a few typical cuts with the knife before trying to cut the practice floral pattern. The cuts are designed to help you cut the floral pattern better and to get you familiar with the working of your swivel knife.

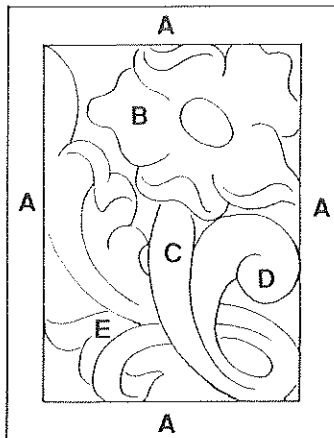
Make a tracing of the lines and lay them out on a practice piece. NOTICE that the lines are not all cut at the same depth. The depth, or thickness, of the cut lines is increased by more pressure being applied to the knife by the hand. To fade a line out you would gradually decrease the downward pressure on the knife.

YOU CANNOT PRACTICE TOO MUCH!

Once you have completed the practice cuts you can transfer the practice floral pattern and cut the design into the leather as shown on the next page. Remember that the swivel knife cut prepares the leather to be tooled. A good cut pattern will help you tool the leather more beautifully.

PRACTICE PIECE TWO: CARVING A FLORAL PATTERN

FIGURE 1



In cutting floral or pictorial patterns, the general approach is to cut the foremost objects first. In this card the Border (A) is the foremost object. Next would follow the Flower (B), the Stem (C), the Scroll (D) and the Leaves (E), (see Figure 1). This must also be considered within these large objects such as the flower (see Figure 2). Notice how some petals overlap others making some "foremost" to the viewer.

FIGURE 2

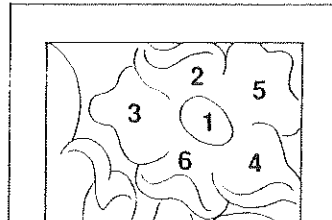
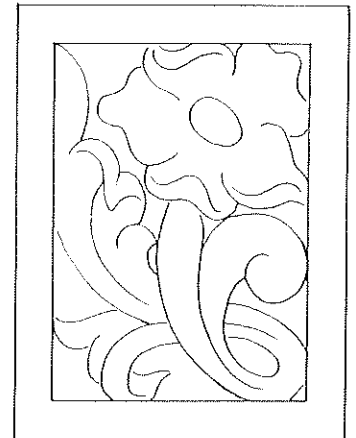


FIGURE 3

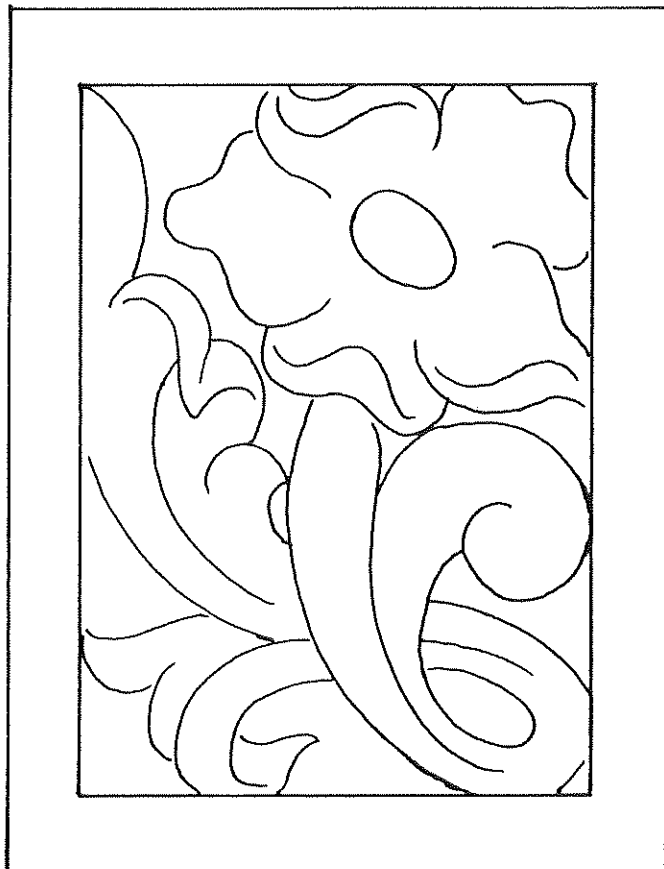


By cutting the objects in your pattern this way it will cause you to think of them in real terms. Otherwise you may fall into the trap of just following lines...which is the worst thing you can do in carving a pattern. You must think of each object separately and how it relates to the others within the picture, from the foreground to the background. Doing this will prevent you from "outlining" objects. You should not outline an object and then come back and cut the interior lines, as this will not tool correctly.

LET'S BEGIN... trace the layout and transfer it to the second practice piece. Study the finished cut pattern and notice how some of the lines fade out in depth. Remember to cut the border first. You can use a straight edge or rule as a guide to make sure you allow for the thickness of the blade. Practice a few lines on the first practice piece in order to get the proper positioning of the rule.

REMEMBER...carving the pattern prepares the way for tooling the design. This is the MOST IMPORTANT STEP in leather carving.

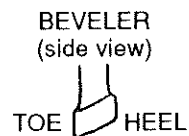
TRACING LAYOUT



THE CARVED PATTERN

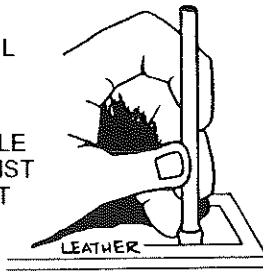


HOW LEATHER STAMPING TOOLS WORK

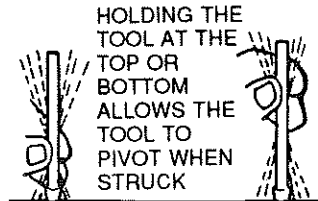


USE THE LITTLE FINGER & WRIST FOR SUPPORT

NORMALLY THE TOOL IS HELD WITH THE TOE FACING YOU



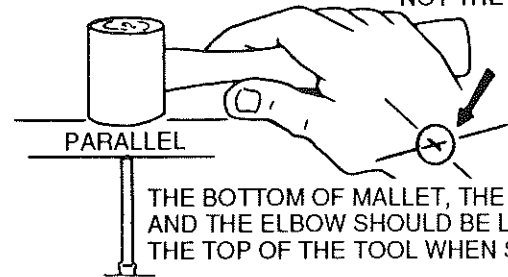
SUPPORT THE TOOL FROM TOP TO BOTTOM



WRONG

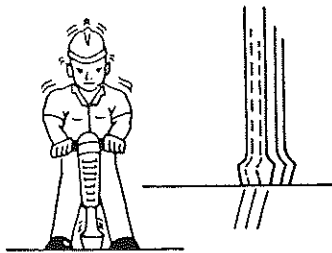
DON'T HOLD Mallet TOO LOOSELY OR TOO TIGHTLY

THE WRIST IS THE PIVOT POINT, NOT THE ELBOW



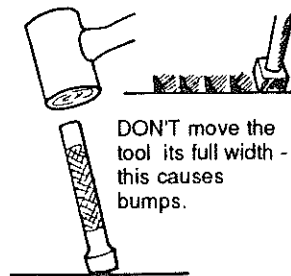
THE RECOIL-WALKING PRINCIPLE

DO THIS



Get the jack hammer action by holding the tool firmly with NO DOWNWARD PRESSURE. Move it gradually down the line, overlapping impression about 1/3 with each strike of the mallet.

NOT THIS



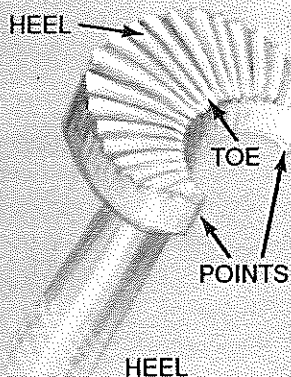
DON'T...lean the tool and try to knock it down a line. The course of the tool is controlled by the hand holding the tool...not the mallet.

Leather stamping tools are used to impress (depress) the leather. In other words the raised look is achieved by pressing down what we do not want to be raised. Proper moisture content is what holds the impression in place after it has been struck with a mallet. Too wet or too dry leather will cause impression to raise back.

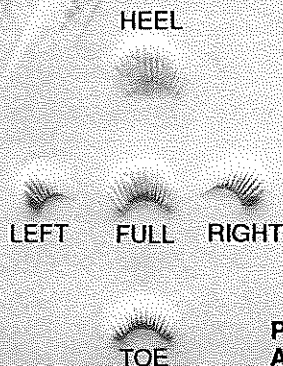
Tools work by a SINGLE DOWNWARD ACTION or a DOUBLE (DOWN-UP) ACTION with each strike of the mallet. Single action tools are held firmly with downward pressure. They are often leaned right or left, front (to the toe) or back (to the heel) which give only a partial impression of the tool.

Double action tools are called WALKING TOOLS. They use the recoil walking principle shown to the left. If you hold a tool firmly in your fingers WITH NO DOWNWARD PRESSURE it will bounce up from the leather automatically after making the impression. This allows the tool to be moved down a line unhindered, and makes a smooth continuous impression in the leather. Each tool illustration will show the tow and the heel as well as state which action is used to make the impression in the leather. The depth of the impression is determined by the striking force of the mallet, and should correspond with the depth of the cuts.

THE CAMOUFLAGE STAMP



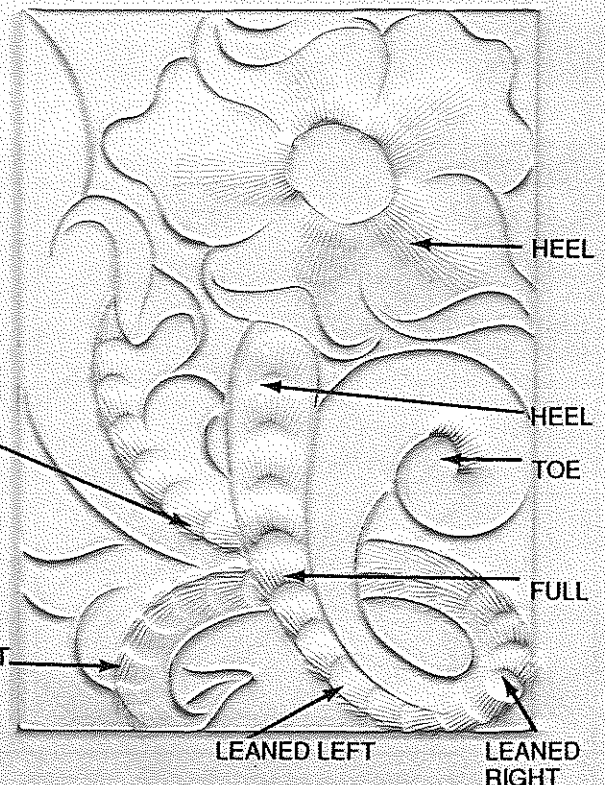
The camouflage stamp is a single action tool. It is normally leaned in order to give only a partial impression. Often they are called leaning tools along with other tools. They are used to portray various textures to stems, leaves and flowers. They are normally used first as they sometimes overlap edges. These marks will be tooled out by the tools that follow. Evenly spaced impressions beautify the design. Always work with the toe facing you so that proper spacing and alignment can be maintained.



PARTIAL IMPRESSIONS ARE ACHIEVED BY LEANING THE TOOL

LEANED LEFT

LEANED RIGHT



THE PEAR SHADER

HEEL

TOE

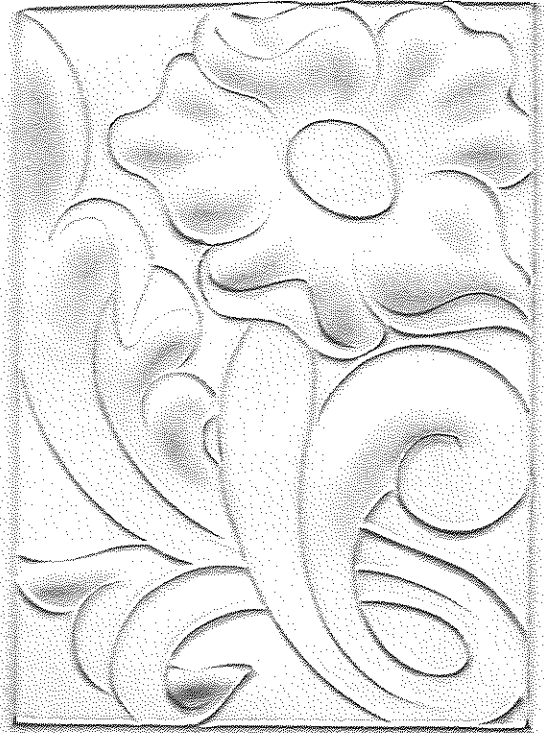
CONCAVE

CONVEX

NOTE ANGLE

The Pear Shader is used to depress the leather to make concave areas. The convex areas are those that are not depressed. This gives the design a three dimensional effect. The Pear Shader is used with a double action and therefore is a walking tool. Start in the deepest area with heavier strokes of the mallet, gradually lessening the force of the strokes to taper off the depth of the impression. Follow the contours of the objects as you work to keep the concave areas compatible with the design. (See page 6 for the Recoil Walking Principle).

**WALK TOOL IN CONCAVE AREAS...
NOTE CHANGING ANGLES**



THE BEVELER

TOE

HEEL

TOE

The Beveler is also a walking tool. Its function is to give relief to the various objects within the design. You will bevel all the cut lines of the design. They will be beveled to the depth of the cut. If a cut line fades out (gradually gets more shallow to nothing) then the beveling will also fade out according to the depth of the cut. To use this tool, the toe of the beveler is placed directly in the knife cut with the face (toe) of the tool against the foremost object. In other words the hindmost objects are always the ones that

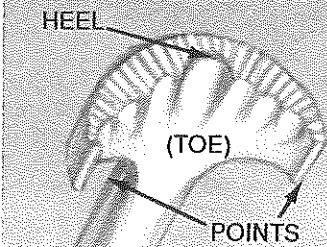
are being depressed with the beveler, leaving the foremost object high. You should always bevel the foremost object first, just as you cut them (see page 5). It would be wise to bevel the lines that you cut for practice on the first practice piece in order to become comfortable with this tool.

**IF A CUT LINE FADES OUT
SO WILL THE BEVELING OF
THAT LINE.**

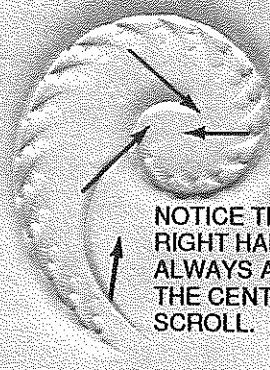
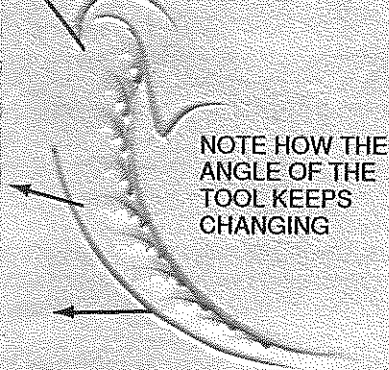


It would be wise to bevel the lines that you cut for practice on the first practice piece in order to become comfortable with this tool.

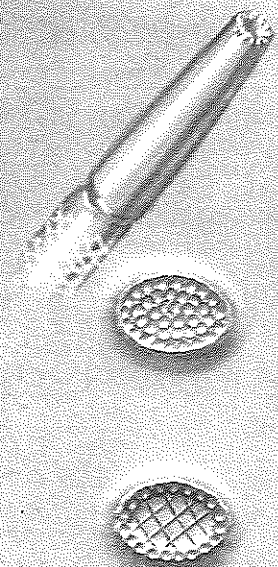
THE VEINER



The veiner is used to give the effect of veins to leaves. It is a single action tool. When using this tool, lean the tool to the cut line so that a partial impression occurs. Often the angle of the tool changes as it moves along curved lines (observe example below). Evenly space the impressions.



THE SEEDER



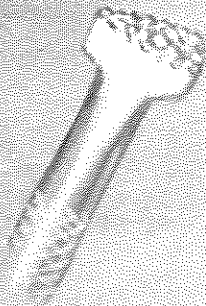
The Seeder is used for making the seed pods of flowers. It too is a single action tool. Normally by the time you are ready to use the seeder the leather has begun to dry out. The seeder works best in leather that has very little moisture left in it. The tool is held straight up and down giving a full impression. The seeder is sharper than most stamping tools so be very careful not to strike it too forcefully as it can be driven completely through the leather. Try a few impressions on your first practice piece.

Stamp the outer row of seeds first. Stay within the carved outline and place the impressions next to each other like a string of beads. Stamp the second row of seeds tightly against the first row. Fill in the remaining area.

ALTERNATE TREATMENT DONE WITH SWIVEL KNIFE.



THE BACKGROUNDER



This tool is used to mat down the background area of the design. This will give the design a bold relief. It is used as a single action tool in confined areas and as a double action (walking) tool in larger areas. The tool should be held straight up and down, strike with uniform blows of the mallet, turning the tool and overlapping the impressions so that individual tool impressions cannot be seen.

DOUBLE ACTION
HERE

SINGLE
ACTION HERE

Like the seeder, back-grounding is done when the leather has very little moisture content, almost dry, but not dry.

It is best to outline the area of background by carefully stamping against the objects within the design and then fill in the area.

You will notice that backgrounders do not have a toe or heel, however you must be aware of where all sides of the tool are at all times.



MAKING DECORATIVE CUTS WITH SWIVEL KNIFE

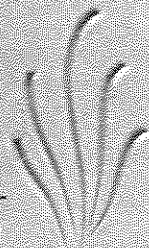
Decorative cuts are made after all previous tooling is completed. They are usually made free hand with the swivel knife, therefore careful thought and observation must be given to the cuts. If you did not do the Practice Exercise One - Swivel Knife Practice, you should do it before attempting decorative cuts on a design. These cuts should be made when the leather is nearly dry, but with enough moisture left in the leather to feel cool to the touch. They should flow with the design, giving grace and beauty to the overall pattern. Begin these cuts with heavy downward pressure, turning (twisting) your knife sharply. Gradually lessen the pressure as the knife is pulled towards you, lifting it out of the leather allowing the cut to fade away into a hairline. Notice carefully the curve (flow) and the angle or shape of each cut.

NOTE HOW DECORATIVE
CUTS BEGIN WITH A
TWIST...

...START DEEP AND
GRADUALLY FADE TO
NOTHING.

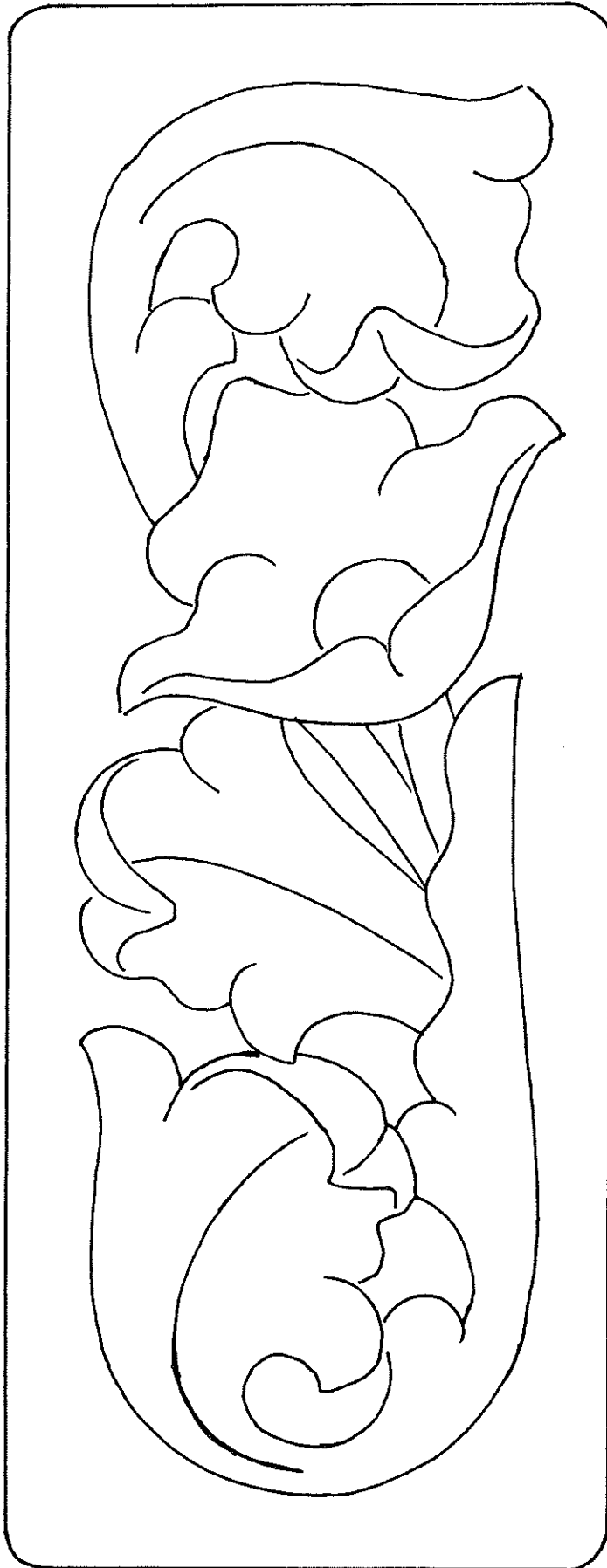
MAKE GRACEFUL FLOW-
ING CURVES

NOTICE HOW THE
LENGTHS AND ANGLES
KEEP CHANGING.



WALLET

TRACING PATTERN

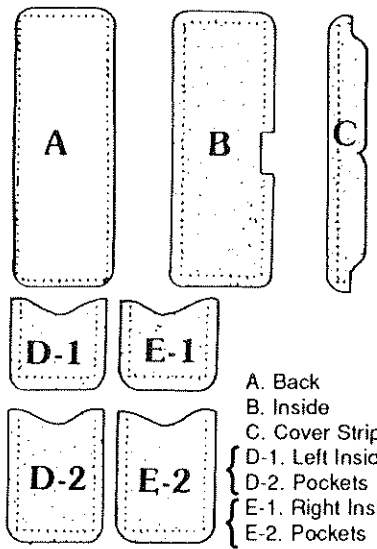


TOOLING PATTERN



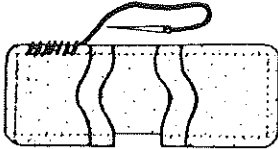
WALLET ASSEMBLY INSTRUCTIONS

(NOTE: Complete all tooling and apply finish before assembly)

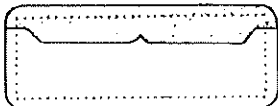


A. Back
B. Inside
C. Cover Strip
D-1. Left Inside
D-2. Pockets
E-1. Right Inside
E-2. Pockets

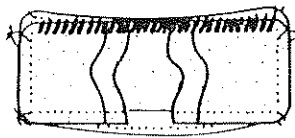
Step 1. With grain sides up, place pockets on inside part, aligning holes along top. Beginning and ending one hole from edge, lace top of inside (B) and pockets (D-1 & D-2) together using whipstitch as illustrated.



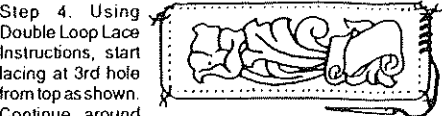
Step 2. Back sides together, align holes in top side of coverstrip (C) with top holes in back (A) and tie a string in each corner hole.



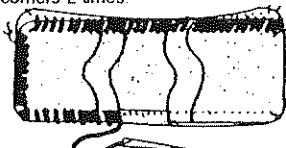
Step 3. Grain side up, place inside (B) over flesh side of back (A) aligning bottom corner holes. Tie a string in bottom corner holes and in top side holes on inside (B). NOTE: Billfold back (A) is longer and wider to allow for folding.



Step 4. Using Double Loop Lace Instructions, start lacing at 3rd hole from top as shown. Continue around billfold removing ties as you come to them. Lace through corners 2 times.

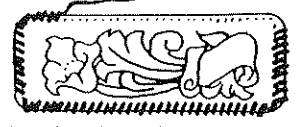


Step 5. Important: There are seven holes in center bottom of back (A) where the insides and the back are not laced together.



Continue lacing in holes of back ONLY and pick up inside (B) at the EIGHTH hole. Continue lacing back (A) and inside (B) together until you reach the top corner.

Step 6. When you reach the top corner, lace across billfold BACK ONLY. Continue lacing to finish. Tie last stitch as shown in Double Loop Lace Instructions.



NOTE: See page 12 for Lacing Instructions.

6-HOOK KEY CASE TRACING PATTERN

NOTE: Make tracing of both views. NEVER flip a tracing as the graphite will stain the leather.



6-HOOK KEY CASE TOOLING PATTERN

See page 12 for Assembly Instructions.

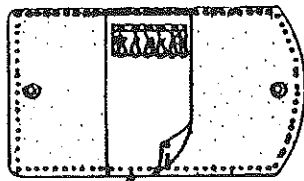
6-Hook Key Case

Assembly Instructions



Note: All carving and dyeing must be completed before assembly.

Step 1: Place part (B) on the 12th hole from the rounded end of part (A) to cover the next 9 holes before lacing.



Begin lacing here.

Step 2: Using the Double Loop Lacing Instructions, begin lacing part (A) to part (B) at the point illustrated. Lace completely around the case.

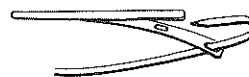
Threading the Needle

Step 1: Using a knife, skive lace approximately 1/2" from the end on rough side of the lace as shown.

Step 2: Using a knife or shears, trim skived end of lace to a point as shown.

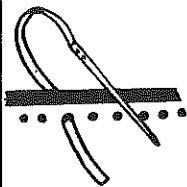
Step 3: Holding the needle as shown, insert pointed end of lace into opening, making sure smooth side of lace is up. Make sure lace is in far enough to catch prong.

Step 4: Imbed prong by tapping lightly with mallet or gently squeezing with pliers.

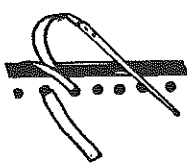


Double Loop Lacing Instructions

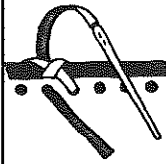
Step 1 - Pass lace through leather from outside toward inside.



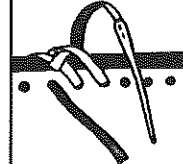
Step 2 - Go through next hole as shown from outside to inside.



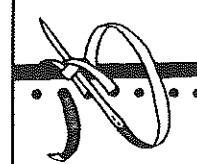
Step 3 - Go through the bight.



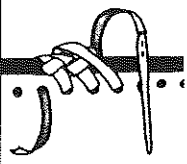
Step 4 - Go through the next hole.



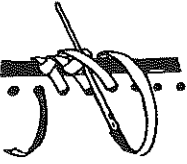
Step 5 - Go through the cross.



Step 6 - Go through the next hole.



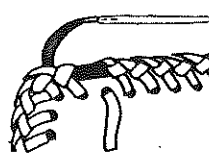
Step 7 - Go through the cross.



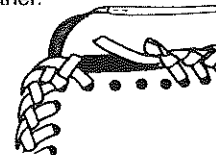
Step 8 - Go through each corner hole twice as shown (always go under the cross for each time you go through the bight).



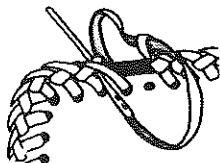
Step 9 - Continue lacing until you reach the starting point.



Step 10 - Remove three stitches leaving one loop in place. Tuck end between the layers of leather.



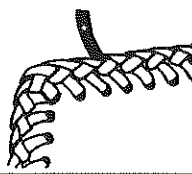
Step 11 - Complete two more stitches, go UP through the loop and back through the cross.



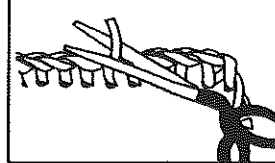
Step 12 - Go down through the loop to the outside, go through the hole and out between the layers of leather as shown.



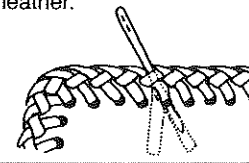
Step 13 - Pull lace up snug between lacing.



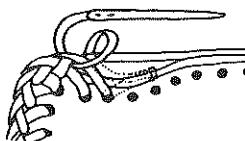
Step 14 - Cut off excess lace.



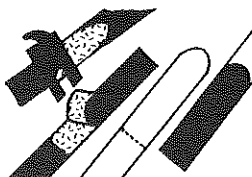
Step 15 - Alternate method of concealing ends is to tuck both between the layers of leather.



Step 16 - THE DRY SPLICE, as shown, can be used when two or more layers of leather are being laced together.



Step 17 - THE GLUE SPLICE can be used when lacing one or more layers of leather. Shave about 3/4" of leather from the top of one and from the bottom of the other end of the lace. Cement the ends together with Tanners Bond Contact Cement.



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