

Colorado  
State  
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Extension

MG2001C  
Member's Manual



**Introduction to  
Leathercraft & Creative  
Stamping, Unit 1**

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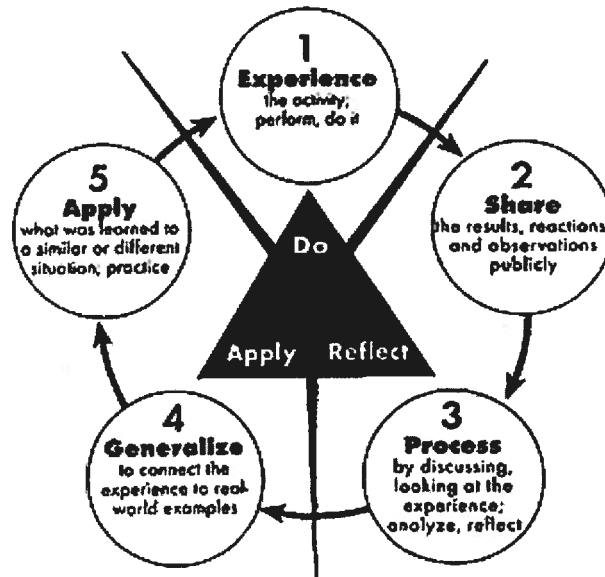
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## Experiential Learning Process

The 4-H program has adopted a process that allows youth to first learn by doing before being told or shown how and then process the experience. The experiential learning model developed by Pfeiffer and Jones (1985) and modified by 4-H includes five specific steps:



The Experiential Learning Process allows an individual to go through the process of discovery with very little guidance from another individual. A situation, project or activity is presented that allows for individual thought and problem solving. Outside assistance is provided at a minimum and supports the individual throughout the process by questioning at each stage. The individual participates in an activity, reflects on what they did, and then assess how what they learned can be applied to a life situation.

1) Experience Questions: How is it working? What else might you try? What might make it easier?

2) Share Questions: What happened? How did you feel? What was the most difficult?

3) Process Questions: What problems seemed to reoccur? What similar experiences have you had?

4) Generalize Questions: What did you learn about yourself? What did you learn about the activity?

How does this relate to something else in life? How did you decide what to do?

5) Apply Questions: Where else can this skill be used? How will you use this in the future? What will you do differently after this experience?

## **Introduction to Leatherwork & Creative Stamping**

This Introduction to Leatherwork and Creative Stamping is the first book in a series designed to teach 4-H members' about Leather-craftsmanship. It is designed to allow 4-H members to create designs through stamping and to explore the wide open potential of this technique. Members need little or no previous knowledge of Leathercraft to complete this unit. Members will learn to use tools to stamp designs on leather then stitch or lace pieces together to make simple projects. There will be no carving with a swivel knife in this unit. Activities are included throughout the book to encourage experiential learning. These activities are optional and can be used as a guide to stimulate more learning about leather.

### **What You Will Learn:**

- The history, sources, structures, tanning techniques, and definitions related to leather and Leathercraft.
- How to prepare leather for stamping
- How to create stamping designs
- How to use stamping tools
- How to do basic methods of lacing and stitching using pre-punched kits or self-cut and punched leather
- How to do basic leather finishing.

### **Tools You Will Use:**

Stamping tools as determined by the design you select. Some tools to consider are:

Backgrounder, border, stamps, flower center, sunburst, mule's foot, seeder, barb wire, geometric, leaf, pear shader,

Veiner, 3-D stamps, camouflage, stop, matting, rope, basket weave, plus many more not listed.

### **What You Should Do This Year:**

- Participate in your 4-H club meetings.
- Create a balanced pattern to stamp a design onto leather.
- Stamp creative designs on three different articles or two articles and one set of articles:

**Exhibit three articles, one each from categories below.**

- One article or one set of articles on flat leather with no lacing or stitching, examples –bookmark, wrist bracelet, set of coasters.

- One article with at least two pieces of leather that are sewed together with lace using a whip stitch or running stitch. Pre-cut kits or self-cut leather may be used. Example: Key case or knife sheath.
  - One article with at least two pieces of leather that are sewed together with cord stitching. Use pre-cut kits with pre-punched holes. Example: Coin purse.
- Apply a clear finish to complete each article.
  - Share information learned through talks, demonstrations, and displays. Keep a record of project costs, hours worked and experiences so that you can place them in the e-Record.
  - Evaluate your progress with your leader.

To exhibit at the county fair, label each article with your name, age, and county. Be sure that the same information is also on the front of your e-Record.

### Projects Suggestions:

- |                          |                          |
|--------------------------|--------------------------|
| • Coaster                | • Money Clip             |
| • Luggage Tag            | • Card Case              |
| • Knife Sheath (small)   | • Coin Purse             |
| • Key Case               | • Belts                  |
| • Simple Cell Phone Case | • Dog Collars            |
| • Simple Wallet          | • Any Other Stamped Item |
| • Wrist Band             |                          |

### Evaluate Your Work:

1. e-Record Book: --Record the following:








- \_\_\_\_\_ a. Attended project meetings
- \_\_\_\_\_ b. Gave a demonstration or talk
- \_\_\_\_\_ c. List skills that were developed
- \_\_\_\_\_ d. Complete the e-record
- \_\_\_\_\_ e. Include in your story information on three completed articles using creative stamping.

2. Completed Exhibit Articles:




- \_\_\_\_\_ a. Do the articles show good balance of design and /or color?
- \_\_\_\_\_ b. Do the articles show good quality workmanship?
- \_\_\_\_\_ c. Uses creative stamping
- \_\_\_\_\_ d. Are the designs are appropriate for size and shape of articles

## A History of Leather

Eons ago, hunters found the animals they killed for food could provide them with sandals and garments by simply curing and fashioning the skins. For centuries, leather has continued to serve humans, each generation of people contributing something to the craft, through technology and ingenuity. The table below outlines contributions to the art and uses of Leathercraft from various peoples and eras throughout time.

Era/Contributions	Uses/Contributions to Leathercraft
Cavemen 	Chose to wrap hides around their feet to prevent bruising and soreness creating the first shoes. Cavemen also used hides to create clothing and blankets.
Ancient Hebrews 	Believed to be the first people to use tanning to cure skins and keep them from rotting, allowing the leather to last for many years.
Egyptian 	Used beautiful jewels and other decorations to create leather sandals that have been discovered in ancient tombs, some over 3,000 years old.
Romans 	Centurions used shields of decorated leather for protection. Romans also used leather as money because they believed it had great value.
Middle Ages 	Leather Guildsmen closely guarded their art and as a result leather products could only be afforded by the wealthy. It was during this time that leather also became a source for creating pages for books or stationary as man realized the importance of writing things down.
Native Americans 	Tanned deer, buffalo, bear and other animals to make moccasins, clothing, vests, headbands, tepees and other items. Native Americans discovered that smoking the leather would make it waterproof. The Native Americans taught early settlers to tan deerskins and create buckskin clothing.
Pioneers 	Learned tanning and uses of leather from Native Americans and spread the knowledge throughout the west. The "cover" of a covered wagon was a special leather tarp and the harnesses used were also leather.



<p>Conquistadors</p>		<p>Brought horses to the Americas and the saddle makers followed. Spanish tack makers were the first to use floral designs in leatherwork.</p>
<p>Shoe-Pegging Machine</p>		<p>Created in 1852, this machine took Leathercraft from art to industry by allowing mass production of leather shoes. Today American shoe makers turn out 5,000 pairs of shoes every minute.</p>
<p>Nuclear Scientists</p>		<p>Needed specialized gloves or gauntlets to protect their hands from burns, so a special leather glove was designed.</p>
<p>Astronauts</p>		<p>Pressurized leather suites, based on early flight suits designed to keep pilots warm and durable, were worn by early astronauts to go into space.</p>

Leather today is wherever we are. All of us use leather in shoes, belts, handbags, watches, wallets, key cases, vests, jackets, gloves and many other items, such as furniture and car interiors. And that is not to mention sports, where baseballs, softballs, golf balls, basketballs and baseball gloves are all made of leather.

### Activity #1 (Activities are optional)

Choose an era in history that interests you (for example: Medieval Times, the Civil War) or a career you are interested in (for example: teacher, pilot) and consider how leather might be a part of that era or career. Do a little research at the local library or online to discover how leather is used throughout time and throughout our world. Record your findings here or on a separate sheet of paper you can attach to this page.

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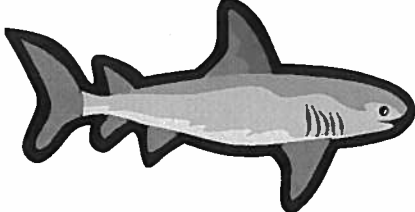
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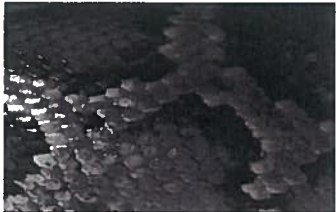



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## Leather Sources

So where does all this leather come from? In most cases leather is a byproduct of meat processing, where the animal is slaughtered for the purpose of food, and the skin is preserved to become leather, but this may not always be the case. The table below includes the most common sources for leather and their relative uses.

Source	Uses
<b>Cattle</b> 	Most leather comes from cattle. The skin, called cowhide, is used for shoes and other heavy leather articles.
<b>Calves</b> 	Calf skin is used for thin items like coin purses and billfolds.
<b>Sheep and Lambs</b> 	Sheepskins and lambskin are used for clothes and gloves. Many of the skins come from New Zealand. Lambskin with the wool left on is used for coats.
<b>Pigs</b> 	Pigskin, from South America, is used for gloves, wallets and shoes.
<b>Horses</b> 	Horsehide is used for sporting goods.
<b>Water Buffalo</b> 	Water buffalo, from Asia, provide strong leather for boots.
<b>Shark</b> 	Shark skin is strong for small leather goods and specialty boots.

<p style="text-align: center;"><b>Reptiles</b></p> 	<p>Snake, Alligator and Lizard skin are used to make fancy leather goods, most common are purses, jackets, boots and hatbands. This type of leather may not be tooled.</p>
<p style="text-align: center;"><b>Elk or Deer</b></p> 	<p>Elkhide and Deerskin are used much as they were by the Native Americans in making clothing, gloves and moccasins.</p>

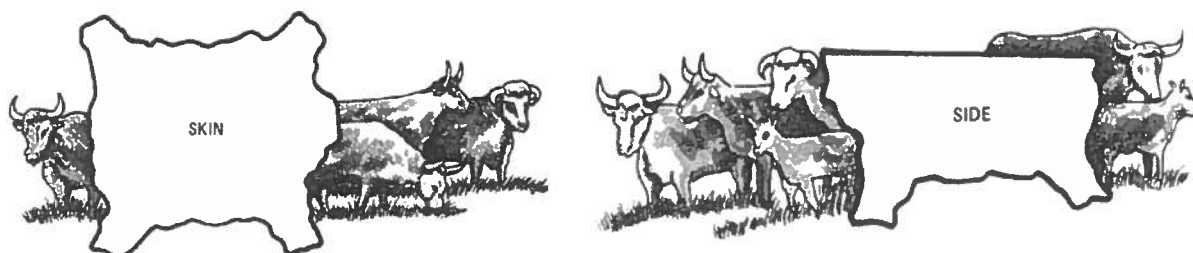
## Activity #2

Take a field trip to your local discount or department store. Find items made of leather and identify which leather source they come from – be sure to double check yourself by looking at the tag. If you can't make it to the store, try looking around your house, your school, or online. Use the chart on page 7 to record your findings. Keep in mind that some things may look like leather, but really are a synthetic material – record these as well listing their source as man-made. Compare which sources are the most expensive.



## Leather Structure

The complete hide of an animal is known as a skin. It may be left whole or cut into sections such as sides, bellies or backs. Smaller animals (calves, goat, sheep) are usually tanned as a skin or full hide. Leather is usually sold by the square foot. For easier handling, large animal hides are usually cut in half. A side of leather is just that, one "side" or one half of a hide.



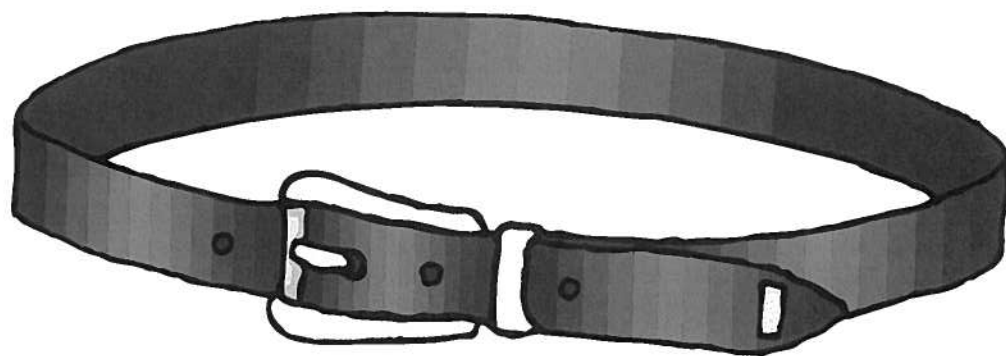
The thickness, or weight, of leather is usually measured in terms of ounces. One ounce equals approximately 1/64" in thickness. To make leather a uniform thickness, hides are run through special splitting machines. Since animal hides are not of a uniform thickness and wet when put through the splitting machine, the thickness of leather will not remain the same throughout the hide. There will always be slight variations and that is why leather weights seldom measure out in exact 64th's of an inch. Leathers are usually shown as 4-5 oz., 6-7 oz., etc. For example:

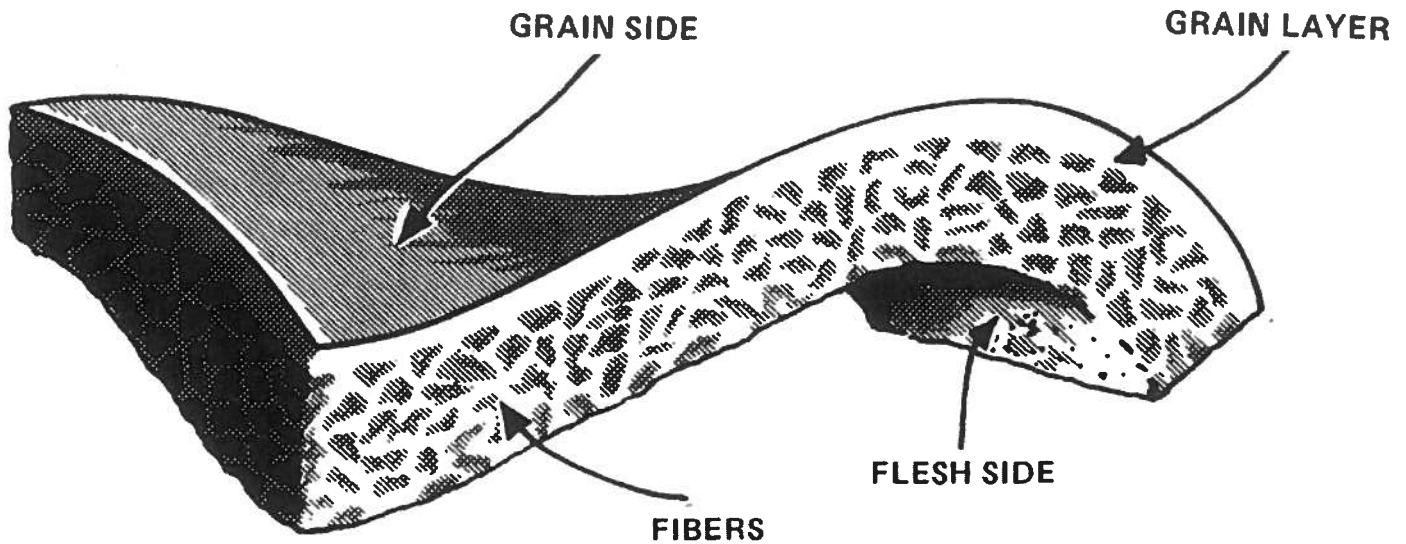
Weight of Leather in Ounces	Approximate Thickness	Common Uses
1 ounce	1/64 inch	Linings, book bindings
2-3 ounces	2/64" -3/64 inches	Molding, tool-able linings & embossing
3-4 ounces	3/64" -4/64 inches	Embossing, lightweight wallet backs, clutch purses
4-5 ounces	4/64" -5/64"	Wallet backs, organizers, clutch purses
5-6 ounces	5/64- 6/64"	Small cases & notebook covers
6-7 ounces	6/64" – 7/64"	Carved purses, camera cases 7 journal covers
7-8 ounces	7/64 to 8/64 = 1/8 inch	Narrow belts, knife sheaths & small holsters
8-10 ounces	8/64"-10/64"	Belts, holsters, & saddle bags
12-14 ounces	12/64" -14/64"	Saddles

### Activity #3

Continue the above table in the chart below. Give the appropriate thickness for each weight.

Weight of Leather in Ounces	Approximate Thickness
15-16 ounces	
17-18 ounces	
20-21 ounces	
31-32 ounces	





### ENLARGED CROSS-SECTION OF LEATHER

Lighter weight leathers, such as calfskin, range from 1 ½ oz. to 3-4 oz. Heavier leathers, 4-5 oz. to 10-11 oz. and more come from the hides of mature cattle.

The "flesh" side of the leather is the underpart that was next to the meat and flesh of the animal. The hair side, called the "grain" side, is most commonly used for carving and stamping. Its fiber structure is more closely knit and easier to cut. When carving and stamping tools are used properly, the grain side will retain even the tiniest details.

The grain side has a "grain layer" of about 1/5 the thickness of the hide. The rest of the hide consists of a honeycomb fibrous structure that works like interlacing hinges or scales. During tanning, fats and oils are added to this honeycomb structure to make the grain side leather soft and workable.

## Leather Tanning

Leather is unique, different from any cloth put together by man, for it is the actual skin of an animal that grew as the animal grew. To change this skin into leather, the skin must be tanned. Various methods of tanning produce leather for different purposes. The two main ways of tanning leather are chrome tanning and vegetable tanning.

### Chrome Tanning

**Why?** Chrome tanning is fast. It takes less time than any other tanning.

**How?** Animal skins are washed in strong chemicals to make the skin strong.

**How can you tell?** If leather is chrome tanned, when you cut into to it the inside will be a bluish white color.

**What for?** Chrome tanned leather is used mostly for shoes, or as with reptile leather, for purses and belts.

### Vegetable Tanning

**Why?** Vegetable tanning creates leather that will absorb moisture readily, allowing leather to be easily molded and formed.

**How?** Animal skins are put in big deep tubs that hold several kinds of tree bark, water and chemicals. It takes over three months for the leather to cure with this method.







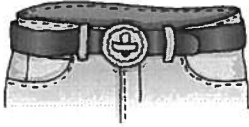

**Where does it come from?** The most common leather that is vegetable tanned is from cattle and is commonly called "strap" leather.

**What for?** Leather to be hand tooled, carved or stamped, must be vegetable tanned.



## Activity #5

Label the leather items below with the tanning method most likely used to cure the leather. #1 is done for you.

<p>Lizard Skin Purse</p>  <p><u>Chrome</u></p>	<p>Coaster</p>  <p>_____</p>	<p>Athletic Shoe</p>  <p>_____</p>	<p>Snakeskin Hatband</p>  <p>_____</p>
<p>Alligator Pump</p>  <p>_____</p>	<p>Leather Jacket</p>  <p>_____</p>	<p>Western Belt</p>  <p>_____</p>	<p>Western Saddle</p>  <p>_____</p>

Other suggested activities:

- Go to a Leather Store (Tandy)
- Go to a shoe repair shop
- Go to a saddle makers shop

Be sure to ask questions about tools used, techniques, etc.

## Leather Definitions

**Alligator:** Genuine alligator comes in several different shades of brown and mahogany; skins range from 14" wide to 60" long; generally used for billfolds and handbags; cannot be tooled.

**Back:** A side with the belly cut off, usually 15 to 18 square feet.

**Belly:** The lower part of a side, usually 6 to 10 square feet.

**Calfskin:** Comes in all colors and ideal for tooling; range from 10 to 14 square feet.

**Chrome Suede:** Taken from the flesh side split off a cowhide.

**Cowhide:** Ideal for tooling and constructing items that must withstand hard wear, such as belts; range from 20 to 25 square feet.

**Elkhide or Deerskin:** Used for moccasins or belts; comes in natural and brown; range from 18 to 22 square feet.

**Full Grain:** Leather just as it is when taken off the animal, only the hair has been removed.

**Genuine Sharkskin:** Breathable, yet water-repellent; has unusual grain surface; used principally for shoes, boots and belts.

**Grain:** Epidermis or outer layer of animal skins.

**Lambskin:** Comes in the form of suede or may have embossed grains to look like alligator, ostrich, or other fancy design; used for linings, purses, and belts; range from 7 to 9 square feet.

**Lizard:** May be found in all colors; is not toolable; skins are small, ranging from 9 inches long to 17 inches wide.

**Natural Lamb:** Used for linings. Suitable for tooling in the heavier weight, has natural color.

**Ostrich:** Beautiful leather but generally expensive; may be russet, brown, and black; range from 10 to 14 square feet.

**Pigskin:** May be tooled, but it is not recommended; comes in natural or black; range from 12 to 20 square feet.

**Shearling:** A sheepskin washed and tanned with the wool left on, then clipped to desired length, usually ¼ to 1 inch.

**Sheepskin:** Comes in the form of suedes, and embossed grains; comes in all colors; range from 7 to 9 square feet.

**Side:** One half skin or hide, usually 22 to 26 square feet.

**Skin:** Leather tanned in the whole pelt, same size and shape as it came from the animal.

**Split:** This refers to the under sections of a piece of leather that has been split into two or more thicknesses.

**Steerhide:** The best tooling leather next to calfskin; comes in natural or two-tone colors and in different weights; range from 20 to 28 square feet.

**Suede:** A finish produced by running the surface of leather on a carborundum or emery wheel (sanding) to separate the fibers in order to give the leather a nap. Used for bags, bag linings, pillows, jackets, skirts, and garments of all types.

**Top Grain:** Not the same as full grain – has often been sanded to remove scars and is then sprayed or pasted to "cover up".

## Activity #6

Using the definitions you just learned, complete the table on page 16. The type of leather is listed for you. Under the toolable column, simply write "yes" if that type of leather may be tooled, or "no" if it cannot be tooled. In the colors column, list the colors that type may come in. For the uses, list the products that may be made from that leather. Finally, in the size column record the approximate size range for that type. Alligator is completed as an example. Once complete, this table can be used as a tool for selecting leather for projects and identifying leathers in ready-made garments.

Type of Leather	Toolable	Colors	Uses	Sizes
Alligator	No	Browns & Mahogany	Billfolds & handbags	14 in. wide to 60 in. long
Calfskin				
Cowhide				
Elkhide/Deerskin				
Lambskin				
Lizard				
Natural Lamb				
Ostrich				
Pigskin				
Sharkskin				
Sheepskin				
Steerhide				

Take this activity another step and look up other uses for each type of leather in catalogs, magazines, or online.

# Purchasing Leather

Leather may be purchased in several ways. Large skins or sides may be purchased by the square foot or precut pieces are readily available.

If you cut your own leather, you will need to punch your own pieces. Small pieces of hides can also be purchased. Some kits come unpunched, so you can choose your own stitches and punch accordingly.

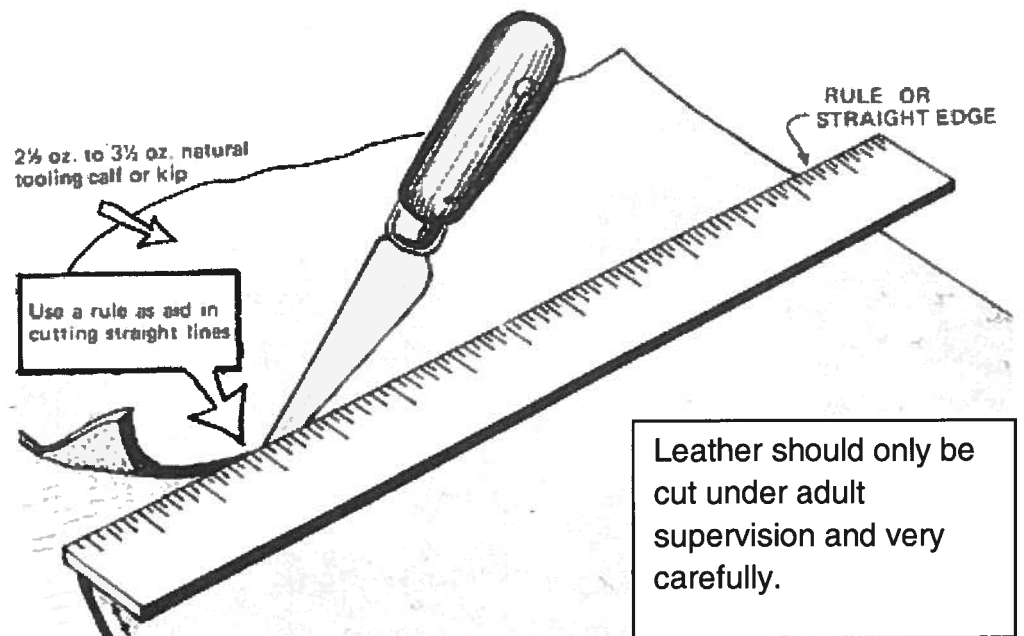
Some great items to begin with are rounders, conchos, rectangles, hearts, shields, daisies, ovals, hexagons, and stars. These items are great for practice stamping and can be turned into bookmarks, coasters or key chains. You can purchase remnant bags that contain scrap pieces of leather ideal for practice stamping and cutting. You will need leather to practice designs before you make your final article.

Complete kits may also be purchased for constructing specific items –all kits purchased for your Unit I project can either be pre-punched or unpunched.

If you prefer to purchase large pieces of leather and cut your own shapes, there are a variety of tools available to help you.

The type of tool needed for cutting leather depends largely on the thickness of the leather piece. The most common cutting tools are shears, rotary cutters, and craft knives.

Shears are best for young 4-H members to use. Follow manufacturer's instructions on all cutting products.



**Note:** If you cut your own leather, remember that you will have to punch your own lacing holes.

## Activity #7

Investigate where you can buy leather in your area. Look in the yellow pages for Leathercraft or hobby shops. Call local craft stores and ask if they carry leather supplies. Search online for supply stores and request catalogs. Record your finding below to reference when you are ready to purchase supplies.

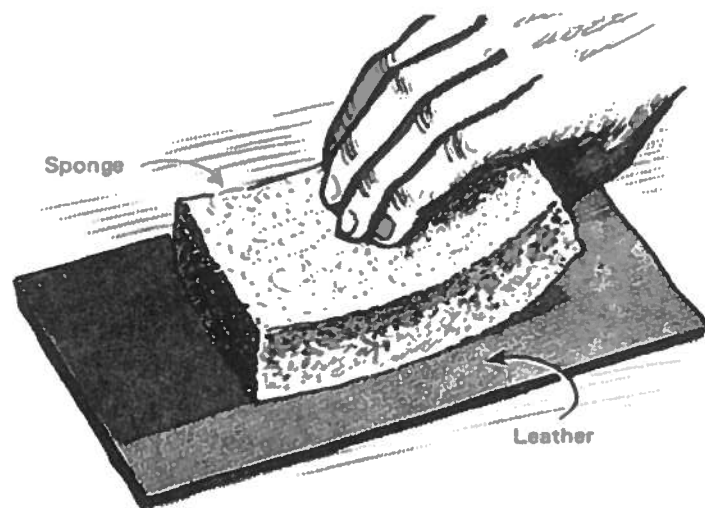
Company	Phone #	Website

# Preparation of Leather for Stamping

Before you can stamp leather, you must moisten it with water. As you wet leather, the fibers swell and soften. Vegetable tanned leather, properly moistened, is like modeling clay. You can mold it, model it and shape it.

Your best guide for moistening leather is practice. Your stamping tools will imprint clearly and firmly into the leather **ONLY** when you have moistened the leather to the proper degree. When it is too wet, the tools will sink deep and could potentially cut through, when it is too dry; the tools will only leave scratches that mar your leather.

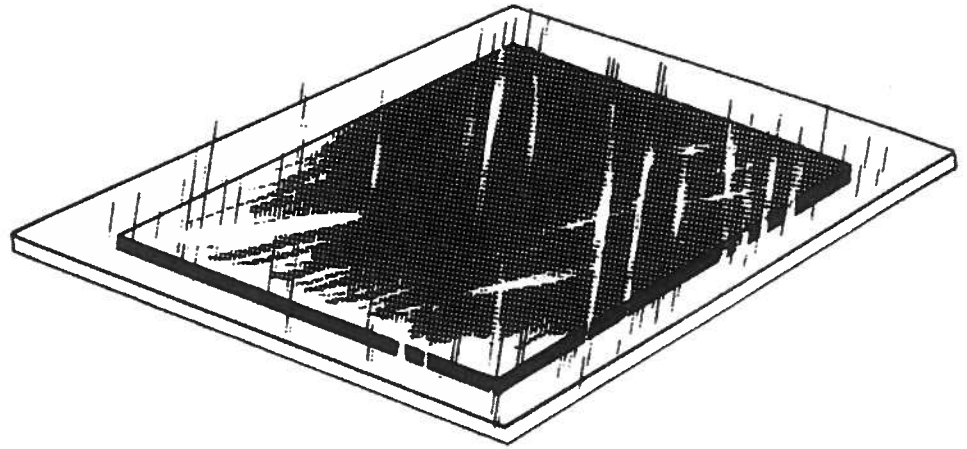
When the dampened Grain side of the leather has almost returned to its original color, it is ready to stamp. You can also try testing the leather by holding it against your cheek. If it is dry, it will feel warm. If it is damp, it will feel cold and that's when you can begin stamping the leather. With practice you will soon know instinctively when to begin stamping.



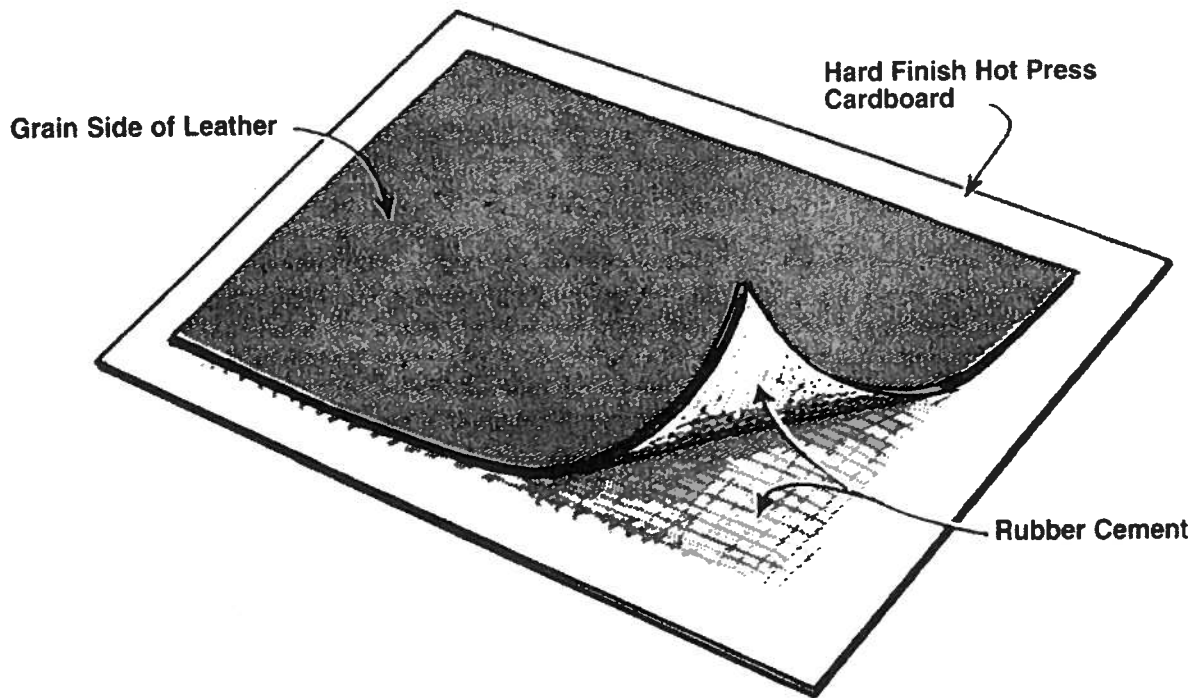
Wetting leather is called “casing”. This means rubbing a damp (not wet) sponge to the grain side as evenly as possible. When it begins to return to its natural color, begin stamping. If areas begin to dry before you are finished, simply wipe your sponge over them to keep them damp.

Always use glass, porcelain, plastic or enameled containers for water---**NEVER** use metal containers as contact with metal may cause dark stains on your leather.

If you must leave your leatherwork for an hour or so, hold and preserve the moisture content by covering it with a piece of plate glass or clean plastic bag. This will retain the moisture for several hours and the leather will be in perfect condition to continue stamping when you return. Be careful—storage of damp leather for a prolonged time can cause mildew.

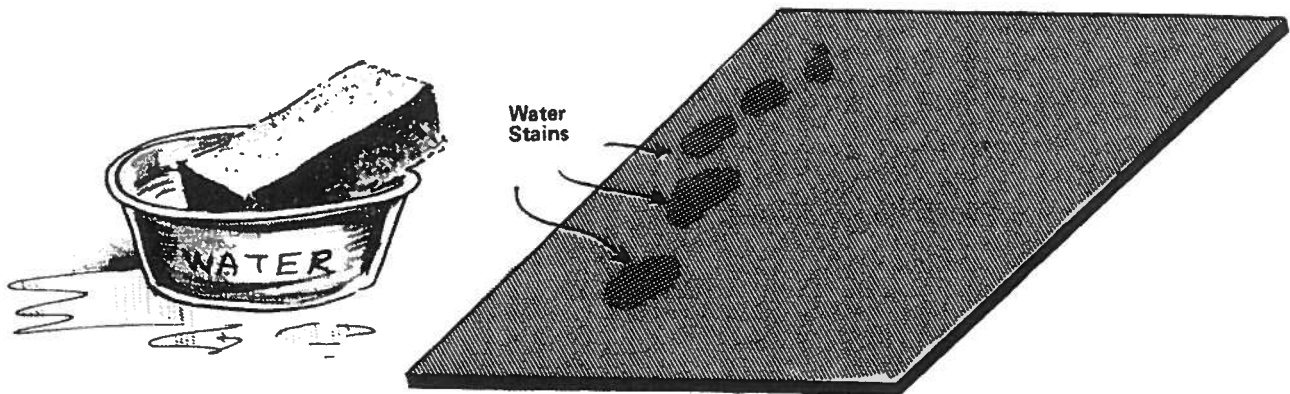


To prevent leather from stretching while stamping the design, apply a light coat of rubber cement to flesh side of leather and to cardboard (use hard finished cardboard for easy removal of leather after stamping). Allow cement to dry then adhere in place. Case leather and stamp design. To remove leather, place stamped side down on bench and peel cardboard from the leather. Hold leather as flat as possible so that it does not wrinkle when removing cardboard.



If you do not intend to line your finished project, lightly sprinkle the flesh side with talcum powder to remove tackiness. You can also use packaging tape (works fairly well instead of rubber cement) and it is easier to remove and does not leave residue behind.

Water can also stain leather. It is possible a few drops of water will accidentally spill on a piece of leather, and going unnoticed, will be allowed to dry. This will cause a definite stain and create dark spots that cannot be removed unless treated at once! If water is dropped onto dry leather, moisten the entire piece at once. Apply more moisture to the spotted area with a sponge, fading out the surrounding area. Enough moisture has to be applied to the spotted area to render it invisible, or the spot will always remain. Basically, the area surrounding the spot must have an equal amount of moisture added so that when the entire piece dries; the spotted area will dry unnoticed.





## Tools and Materials Needed

The basic tools and materials you will need to start doing leather work include:

1. Pencil (soft lead)
2. Masking tape
3. Tracing (transfer) film which is a special lightweight sheet plastic that comes in rolls or sheets
4. A stone (marble) or other hard smooth surface; for example a smooth piece of hard board or a hard smooth floor tile. Or a cut out sink portion of a granite countertop. (Usually from contractors) Glue bottom with rubber pound-o-board (Tandy)
5. Cutting knife or a straight edged razor blade
6. Ruler or straightedge
7. Clean bowl and sponge

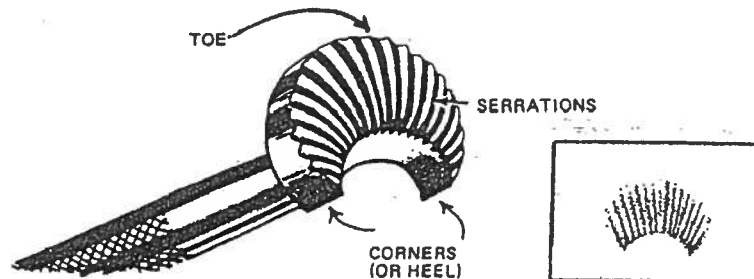
8. Modeling tool--the pointed end is also called a stylus



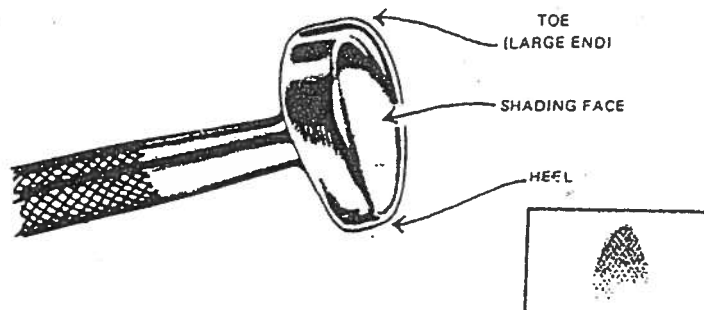
9. Mallet --A small inexpensive mallet will do. You can make your own mallet if you wish.



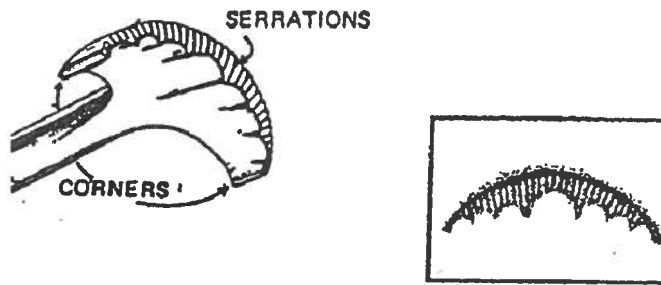
10. Camouflage tool



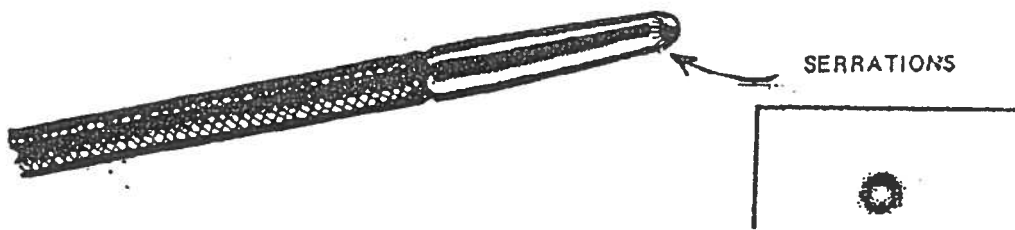
11. Pear Shader



12. Veiner



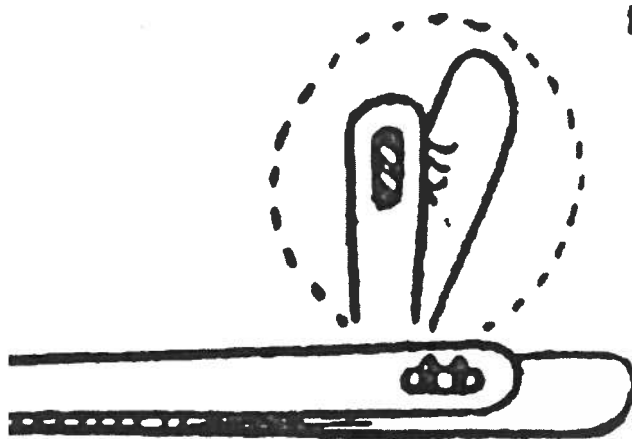
13. Seeder



14. Backgrounder



15. Lacing needle

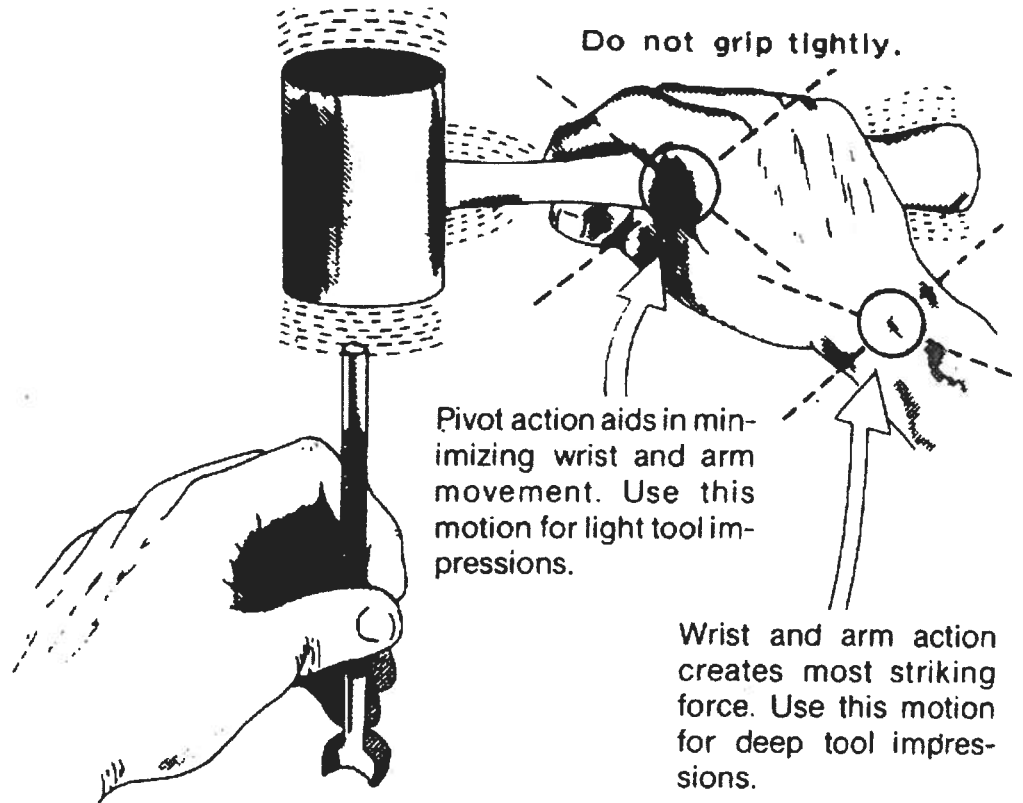


## Stamping Tools

Stamping tools are designed to obtain specific effects in the development of the design. Design is very important in this unit. Always plan a design which follows the lines of the article.

### The Mallet

The mallet is used to strike the top of stamping tool to obtain its impression in the leather. A leather mallet should be rawhide or wood --- **NEVER** strike the top of the stamping tools with metal hammers --this will damage your tools.



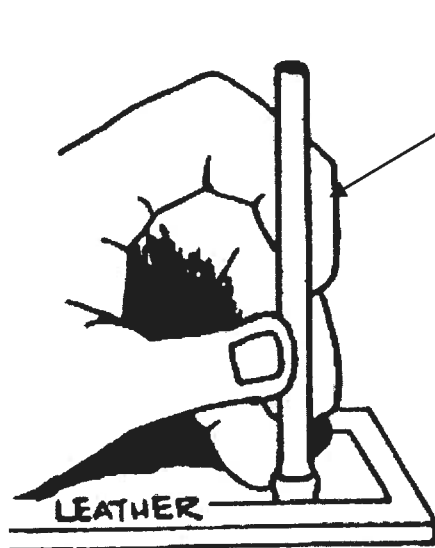
1. The mallet should be held in the most comfortable position for you, don't grip it too tightly. Hold the mallet in the center of the handle with your fingers rather than the palm of your hand.
2. Hold the mallet in the most comfortable position for you!
3. For deeper impressions, use the wrist as the pivot point. Hold the handle more tightly toward the end.

## Stamping Guideline and Instructions

You have learned all about leather, where to purchase it, basic stamping tools and how to prepare your leather. You are ready to make designs and stamp!

***First things first: you should always wash your hands before handling leather! The oils in your skin can cause stains that won't come out.***

To stamp leather it must be placed on a hard, smooth surface. A tempered Masonite board provides a good surface. The best working surface is a piece of marble at least  $\frac{3}{4}$  inch thick. It will stay smooth as glass for years. NEVER tool leather on a bare table. Minor slips and mishaps will scar your tabletop forever.



Let's begin by learning to hold our tools properly:

Normally the tool is held with toe facing you.

Support the tool from top to bottom:

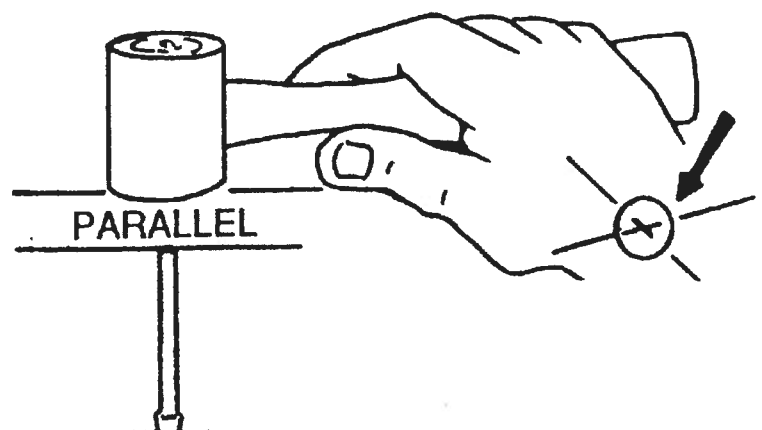
Holding the tool at the top or bottom allows tool to pivot when struck.



Use the little finger and wrist for support.



Don't hold the mallet too tightly or too loosely—hold in the center of the handle with your finger. Pivot from your wrist to strike the stamping tool—you may want to rest your elbow on the table and only move your wrist to increase your striking control. The bottom of the mallet, the forearm and the elbow should be level with the top of the tool when struck.

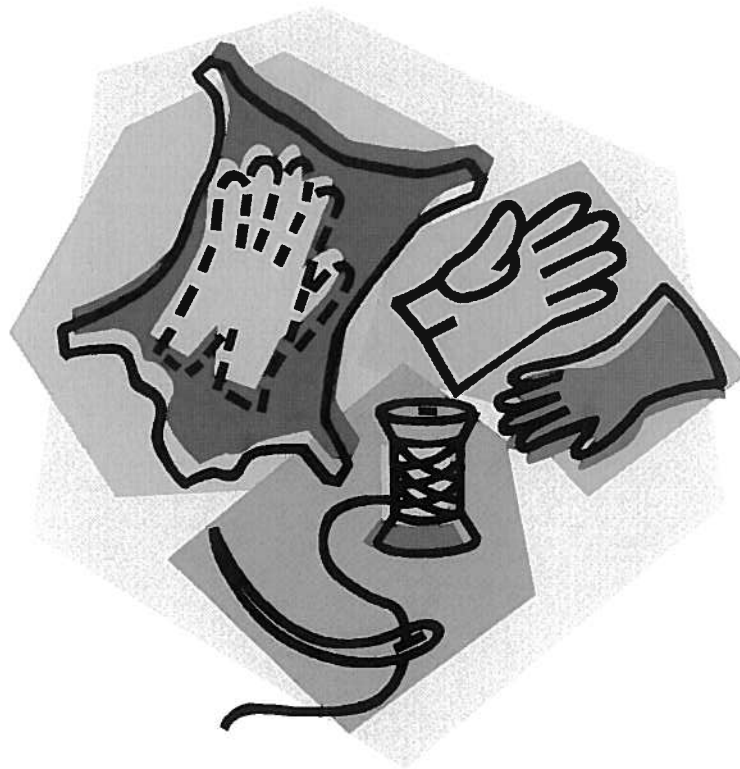


## How to Create a Stamping Design

A stamping design can be simple or very complex. With the tools described previously, you can create many different basic designs. There are several guidelines to follow.

- The design must fit into the shape of the article that you want to make. A long narrow design for a belt will not fit the shape of a wallet.
- Start with a simple design, practice using the tools on a scrap piece of leather. Do not work on your final piece of leather until you have figured out and practiced everything that is necessary to create your project. Make all of the mistakes, changes in tools or how you hold them on scraps first. A stamp or a tool makes a permanent mark on leather that cannot be erased. With a lot of experience mistakes can be modified, but not easily.
- Look at many designs before you decide what you want to do. Then look closely at how the tool impressions are placed. Are they in a straight line? Do the edges just touch? Where exactly is one tool placed next to, over or below another? If the same tool or set of tools are used, they must be placed exactly the same throughout each repetition to create the design. Practice this until you can do it correctly.
- On a practice piece draw guidelines with a ruler and a stylus so you can keep the placement of the tools in a straight line or to maintain the balance of the design on two sides or all sides depending how complicated a design you use. For the final piece, make the guidelines very lightly. Cover these lines as much as possible with tool impressions. They should not be visible on a finished article.
- Make sure that there is enough space to fit the entire tool impressions needed for the article you make. For example, for a border design using a veiner, measure the distance available exactly. Use a practice piece which has a drawn guideline the same distance in inches. Count how many repetitions of the veiner are needed to fill this distance. Do whole impressions fit or is there only room for a part of one? If there is left over space that cannot be filled, make the length of the design shorter or alternate with another stamp to create a design that will fit in the distance needed. Carefully plot out how to do corners so they blend in and connect the straight lines. If you are doing a rectangular design, make sure that the number of impressions on the top line is equal to the bottom line. Do the same for the two sides. Remember to have space for the corners to fit.
- For an article that is laced or stitched, the pattern should be inset back from the edge so that the lacing will not cover it when finished.

- There are many different kinds of stamping tools available. Each one has a specific letter and number on the back edge of the handle to identify it. For example, a veiner might be marked V406. This means that it is specific shape or size that is different from other veiners and can be identified. Some designs will give instructions on which numbered tools are to be used to create the design.
- There are many patterns available for stamping designs on different sizes and shapes of leather articles. Project kits often include designs that can be used for that article. You can use a design provided in a kit, change it a little, or create your own design.



## Stamp Borders

These are just a few border design ideas. There are hundreds of possible combinations. Try some of things out and see which ones you like the best!

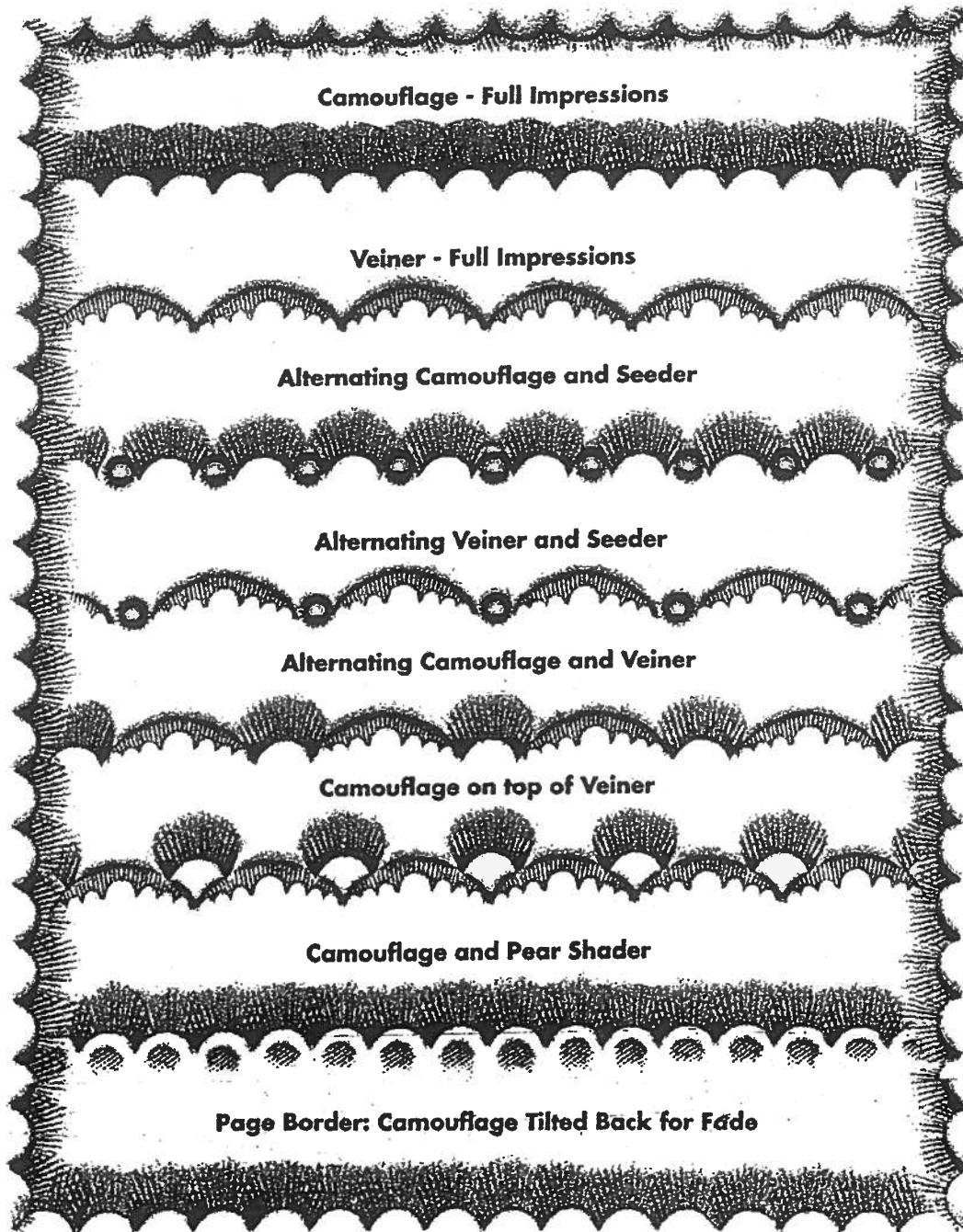
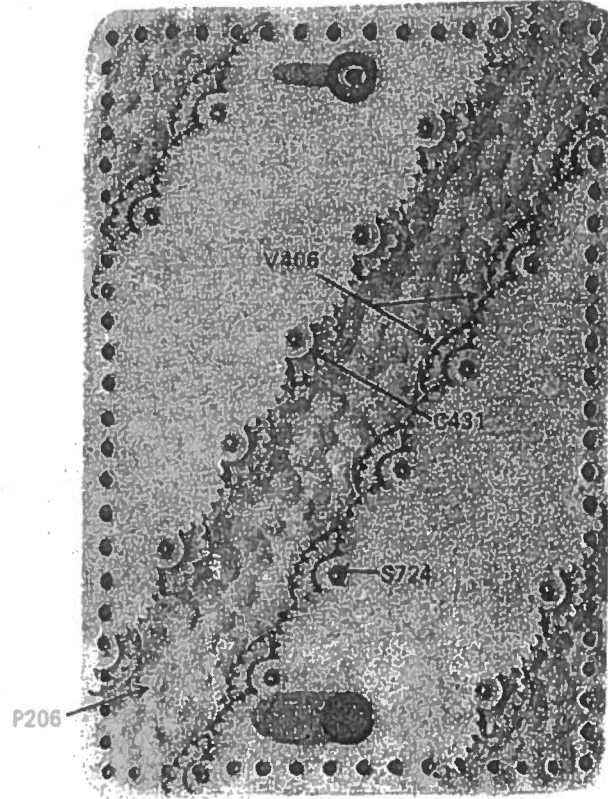
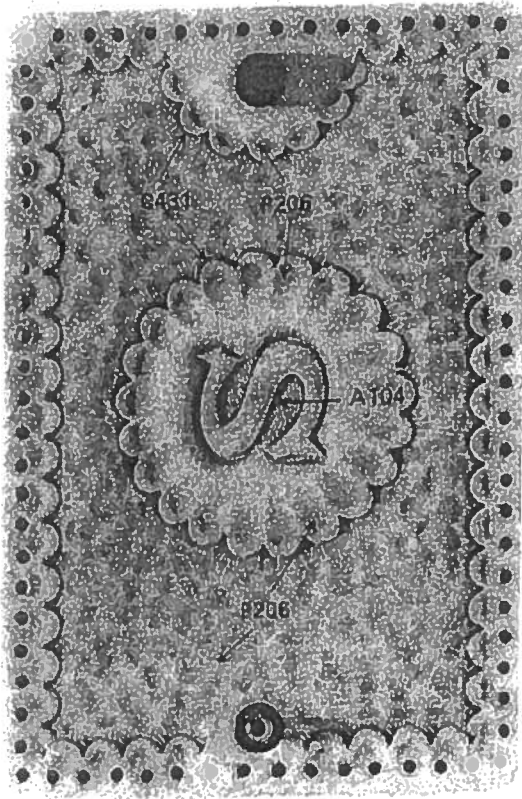


Figure 1 Designed by Tony Laier-Tandy Leather Co.

KEY CASES



WALLETS

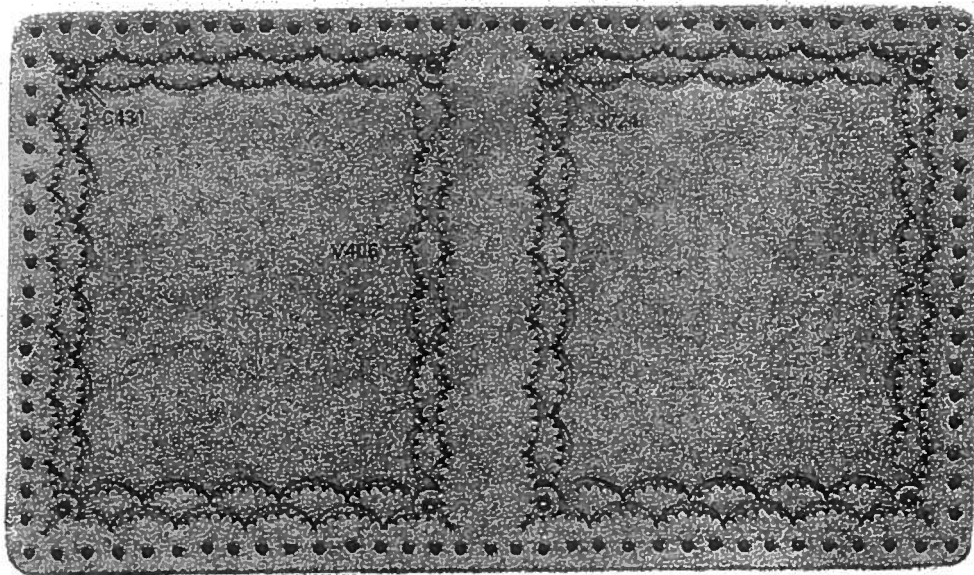
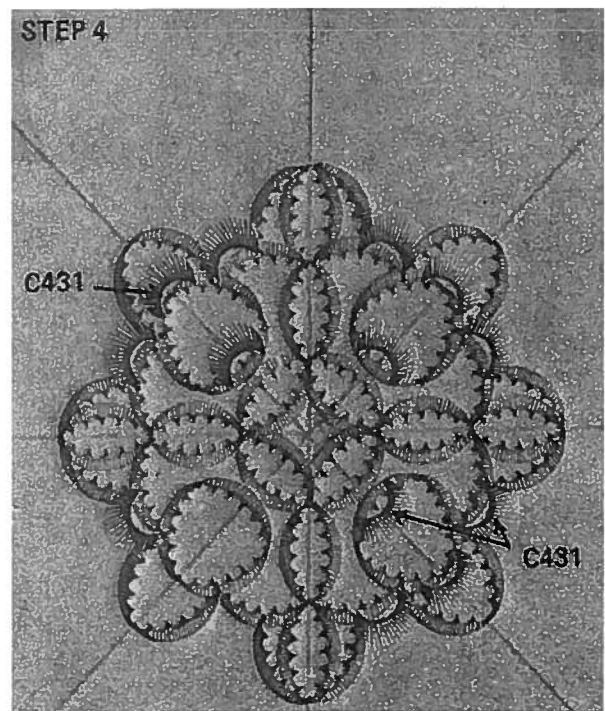
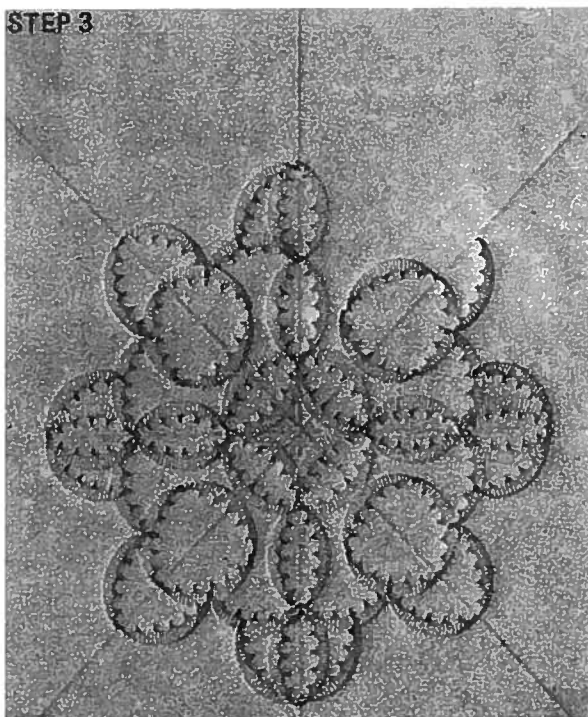
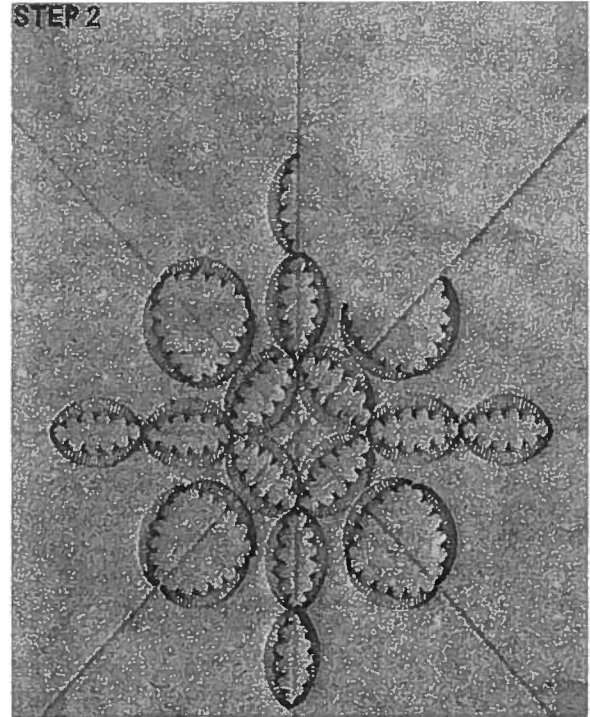
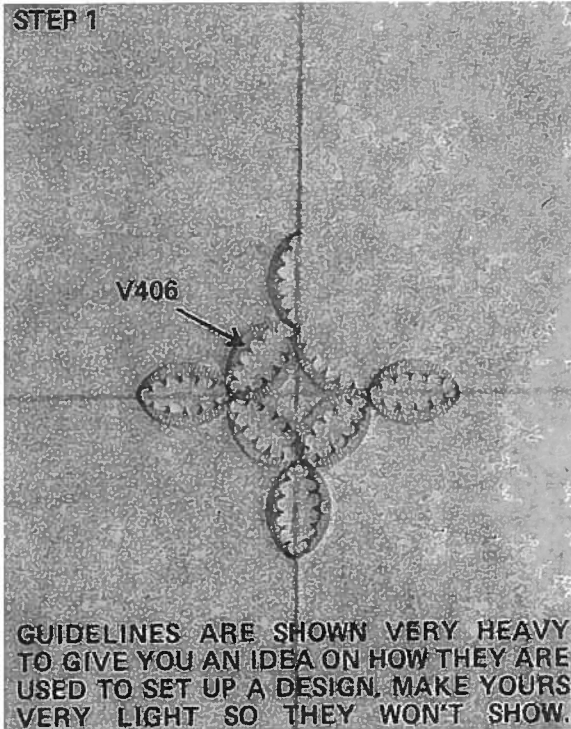


Figure 2 Designed by Tony Laier-Tandy Leather Co

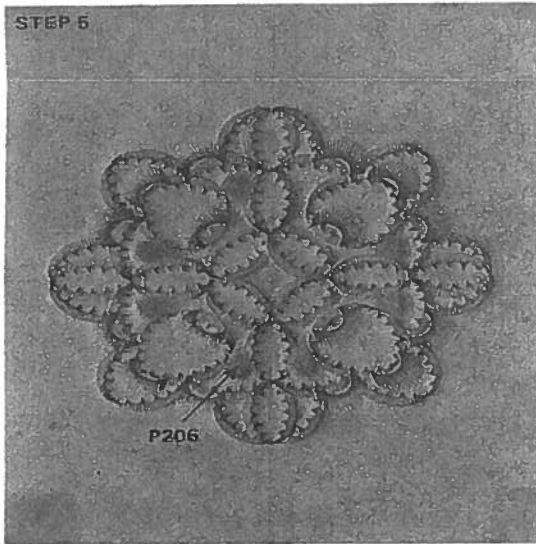


## Building a Design

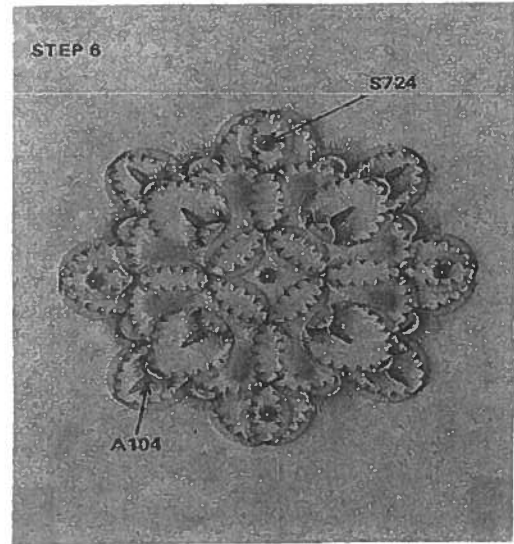
There are many patterns available for stamping designs on different sizes and shapes of leather articles. Project kits often include designs that can be used for that article. You can use a design provided in a kit, change it a little, or create your own design.



ADD P206



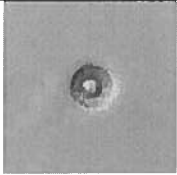
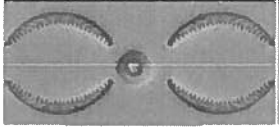
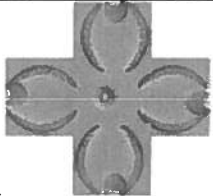
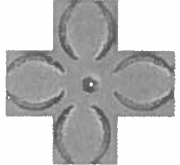
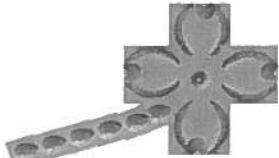
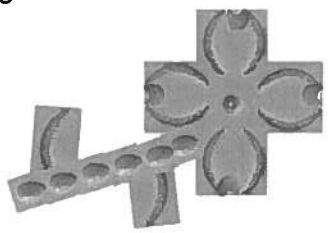
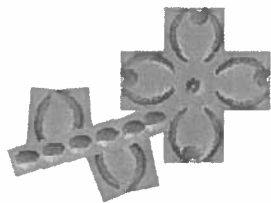
ADD S724 AND A104



Steps Designed by Tony Laier – Tandy Leather Co

### Stamping Nature Designs

Many beautiful designs can be stamped on leather with stamping tools. The design can be simple or intricate – either floral or geometric. An example of this type of design is given in the procedure instructions on this page.

 <p>1. Locate the center of the flower on the leather and stamp with the seeder</p>	 <p>2. Carefully space out petals of the design and stamp with the veiner.</p>	 <p>3. Fill in opposite petals of the design, spacing carefully.</p>	<p>4. Add end of petals with the camouflage tool.</p> 
<p>5. After the flower of the design is complete, make a stem with the pointed end of the pear shader.</p> 	<p>6. Locate and stamp leaves using the veiner.</p> 	<p>7. Complete leaves by adding the upper portion with the veiner.</p> 	

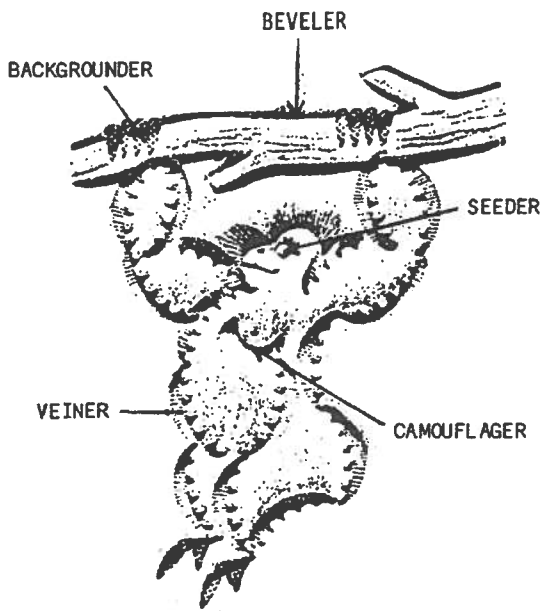
(Taken from the New Mexico Leathercraft Manual)

The key to good stamping and a quality final product is practice. Use practice pieces and scraps to layout designs before you ever begin the final project. Do not be afraid to experiment, but always try it out before you start on items you hope to complete to exhibit or give as gifts.

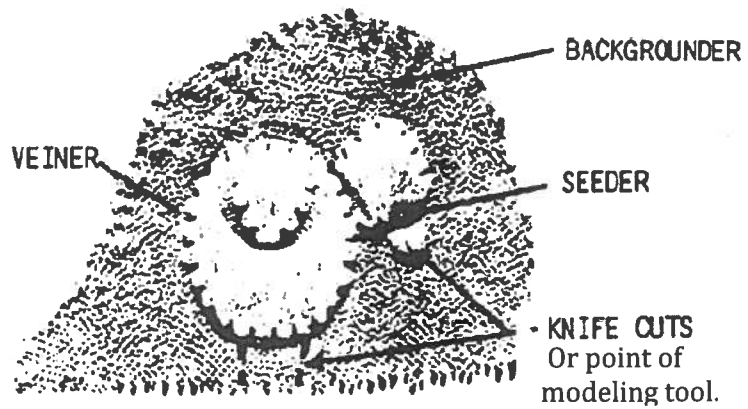
Additional Resources: Book, "Craftool Tech-Tips" by Al Stohman; is a good resource for stamping ideas.

Or, use basic tools to create figures, flowers and leaves.

### GORILLA

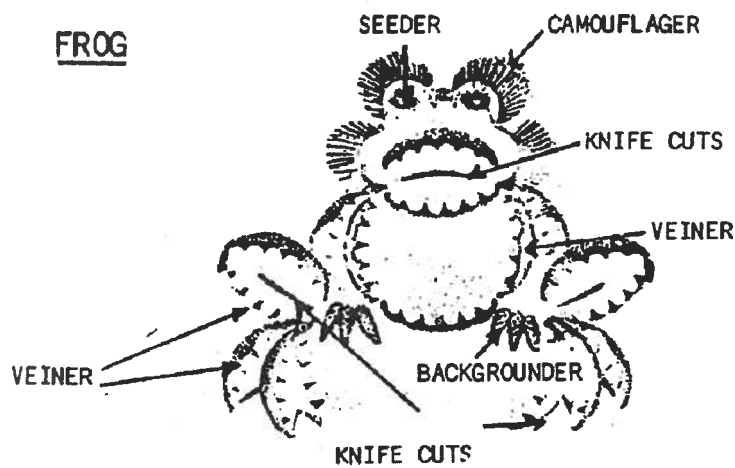


### SHEEP



### FROG

#### FROG



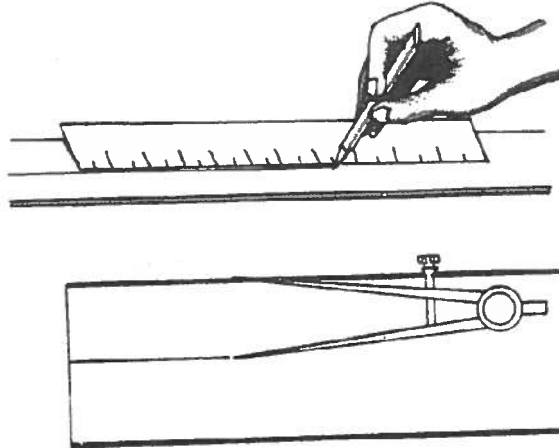
Designs by Tony Laier – Tandy Leather Co

## Mark the Leather

Mark and practice your design on a piece of scrap leather so you can double check size of the stamps and how they will combine into the final design. This is especially important in stamping geometric designs.

Do all marking on surface of leather. You can make lines heavy and have them as part of the design, or as light as possible so they will not show on the finished article.

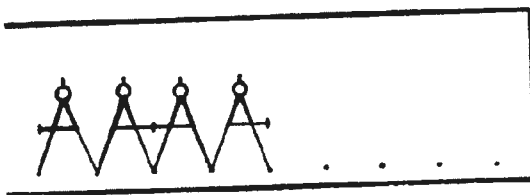
A straight edge or wing dividers should be used to mark the center line. Keep dividers at a low angle to leather and use very little pressure.



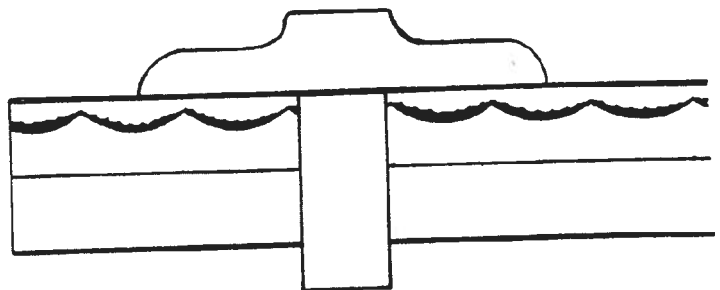
Make border lines the same way. These lines usually should be heavier than the center line.

A ruler or wing divider should also be used to mark spacing at the border and on center line. Mark the spacing on only one guide line at this time.

Set wing dividers for the desired measurement and walk down the line.



Layout dots should be squared across to the opposite border or center line after first layout line has been tooled. This will make them symmetrical.



## Basket Weave

The basket weave is frequently used to tool an area within borders such as a belt or strap.

Cut and bevel inside border lines.

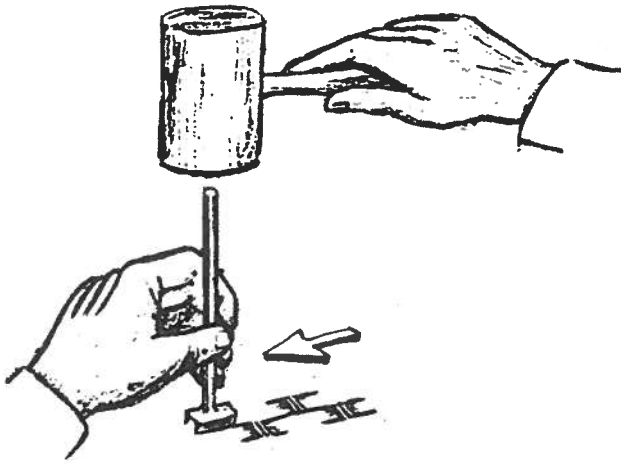
Mark a light guideline either parallel or diagonal to the border lines.

Stamp the first impression above the line as shown.

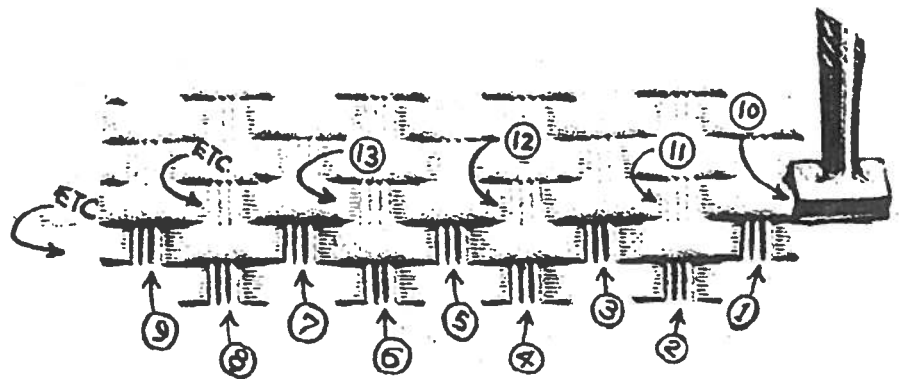


Hold the tools straight up and down and strike sharply with a mallet.

Stamp the second impression below the line. Slightly overlap ends of each tool impression. Stamp from right to left (unless left-handed) for better visibility.



Large tools must be held against the leather tightly to keep the tool from bouncing and making a double image. Large tools must also be struck harder for a good impression. Smaller tools must not be hit very hard. Experiment on a practice piece.



Continue stamping from right to left until upper area is completed.

After completing the upper part of the pattern, turn leather and complete the lower part.

The tool may be tipped for a partial impression when near the border.

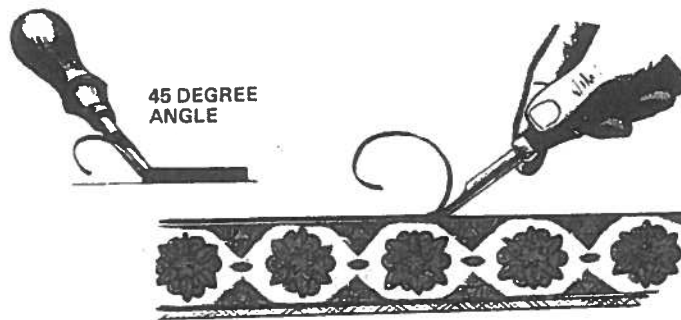
## **Finishing the Article**

This needs to be done on unlaced edges of a project.

### **Edge Beveling**

The edges of most unlaced articles may need to be rounded for a more professional appearance. Both the grain side and the rough or flesh side should therefore, be edge beveled. This should be done for belts

For best results, hold the work flat on working surface with free hand. Hold the edge beveler at a 45 degree angle to the edge of the article and with firm pressure push the tool forward. A good bevel is indicated by one continuous "string" of leather from the beveled edge.



### **Burnishing the Edge**

Burnishing the edges adds to the "finished look" of leather articles which are not laced.

Moisten the beveled edges of the article with a sponge. Rub this circle edge slicker briskly back and forth along the edge, while holding work firmly on the edge of the table. With proper use and a lot of rubbing, the edge should become glass smooth. Can be finished with a light coat of beeswax. Rub in well to eliminate stickiness.



## Leather Finishing

Leather must be cleaned before applying the final finish. Even though the leather has been cleaned before tooling, stamping, the surface becomes soiled through handling and a final cleaning is necessary. Be sure that the surface area is dry and clean of any dirt, dust or other matter before finishing.

Procedure:

- Clean only if needed.
- Clean with lemon juice on a clean white cotton cloth.
- Rinse with clear water on another cloth. Wipe dry.

Leather finishes are applied to protect the leather and preserve the qualities and appearances of genuine leather. Before applying the finisher, there are several points which you should know:

- Only a clear finish such as super sheen can be used.
- All tooling of the design must be complete before finisher is applied.
- Be sure the surface area is clean and free of any dirt, dust, or other matter.
- Remove all loose wool from the sheep's wool applicator or dauber so it does not get into finish.
- Leather finishes must be applied prior to assembly. It is difficult to get a smooth, even coat over a curved structural surface.

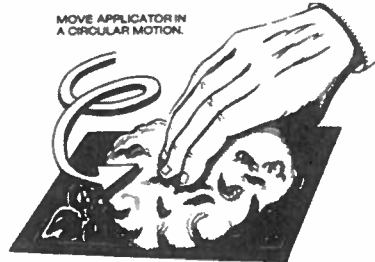
When using a liquid finisher, a sheep's wool applicator or dauber is best. Many finishers come with the dauber attached.

Care should be taken when applying finishes to be sure only a light coating is applied. For best results, pour some finish into a small glass or ceramic container. Soften the applicator by rubbing a small amount of leather finisher into it.

Apply finisher to leather in a smooth circular motion. Be sure to cover the entire surface. A light coat is best. Apply it smoothly and evenly. Notice that the words "light" and "smooth" are repeated often related to finishing, that is because it is very important that you use a light coating and apply it smoothly. Do not go back over the finished surface after the first coat is applied. Refer to the illustration below. Two to three light coats are better than one heavy coat.

Keep in mind some finishes give instruction on how to best apply them on the container.

Sheep's wool applicator is best for application



For most clear sheen types finishes: Apply with piece of sheep's wool, or a small soft cloth. Wipe off the excess and let it dry. Do not shake bottle before application as bubbles may mar a smooth finish. There are also spray clear leather finishes available. With any finish it is always better to have several thin layers of finish than one thick layer.





# Basic Leathercraft Lacing

## Items Needed for Lacing:

- Practice pieces of leather
- Lacing and lacing needle
- Tools for measuring, marking and hole punching

Lacing puts the finishing touch on handmade leather articles. How good the finished project looks depends very much on the lacing. How you lace and your technique have a great deal of importance in the appearance of the finished project. You can either punch your own holes or you will be using a kit that the holes have already been punched.

**Remember:** Always lace with the front or outside of the project facing you.

Lacing is special. It will have a smooth side and a rough or flesh side, much as the leather itself does. When you are done lacing a project, only the smooth side should show. You should load two yards of lace in the needle at a time. Working with longer pieces of lacing will be difficult and can cause the lacing to wear and become frayed as it is pulled through the lacing holes.

Calf lacing is the best to use and will come in a variety of shades from tan to dark brown and black. It can be purchased by the yard or by the spool. It is cheaper when you buy it by the spool.

## Amount of Lacing Required

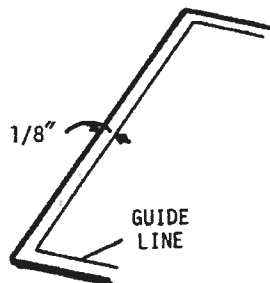
Style	Edge Distance	Amount Required
Running Stitch Lacing	1/8 inch	1 ½ x distance
Whip Stitch Lacing	1/8 inch	4 x distance

The most common lacing used is 3/32 of an inch in width, though other popular widths are 1/8 and 3/16. Lacing will slide through the holes more easily if it is first treated with beeswax or other leather preservative to make it more slippery.

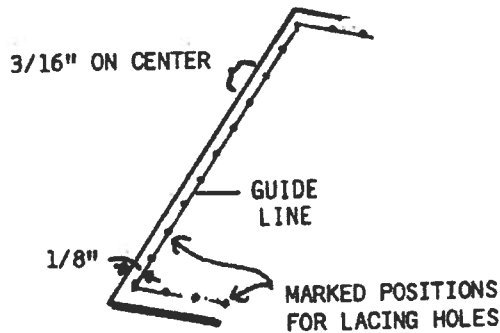
## Preparing the Item for Lacing

Either a round hole punch or a thonging chisel may be used for punching holes. Some people prefer round holes for some kinds of lacing and slits for other kinds. Holes can be slightly enlarged with a stylus, or the pointed end of a modeling tool, so the lacing needle will slide through more easily.

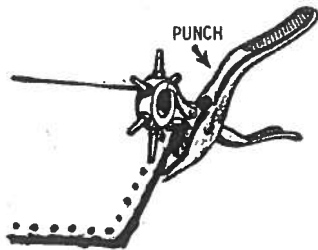
Scribe a light guideline 1/8" from edge around leather item to be laced. Use ruler and point of modeling tool or other methods.



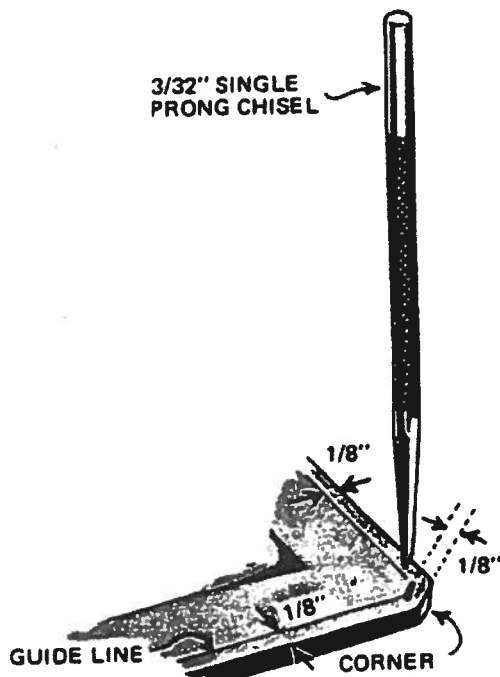
Measure and mark position of lacing holes along the guidelines. You must have an even number of holes for the stitches to come out right if you are doing the running stitch.



Use the type of punch desired to make holes. Carefully follow the marks.



Note: The multiple prong thonging chisel or the 4-in-1 chisel round hole punch provides automatic spacing of lacing holes.



### Thonging Chisels

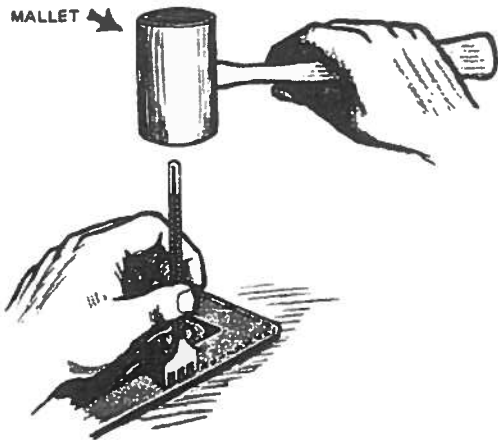
Thonging chisels are also called lacing punches. When cutting your own leather articles, you need to punch precisely spaced lacing holes. Information in the next section will tell how to do this.

Thonging chisels (lacing punches) are made single prong and multi-prong. The single prong is used for corner slits and curves. It can also be used in a specific way for the running stitch. The multi-prong is faster and more accurate for straight lines where the whip stitch can be used.

## Punching Holes with Thonging Chisel

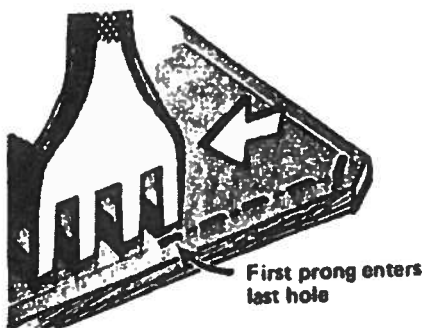
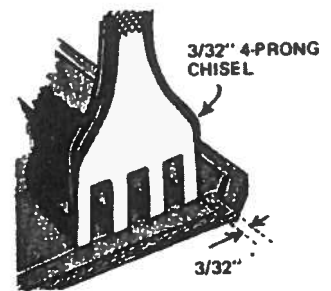
You will need a piece of soft wood to place under your leather practice piece or article. Place the leather tooled side up. With the point of the modeling tool, mark a light guide line. This line should be 1/8 inch from the edge of the leather item which is to be laced. Then, with a razor blade or sharp knife, trim sharp corners of the leather item so they are very slightly rounded.

Use a single prong chisel to punch all corner holes. Punch all holes to a uniform depth of the thonging chisel.



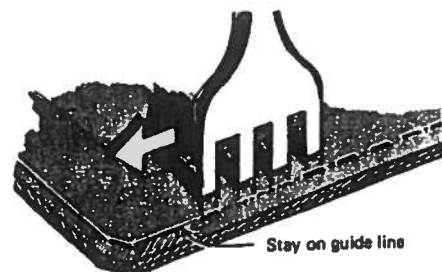
Holding the thonging chisel straight up and down, strike firmly and squarely with the mallet. Never use a steel hammer to strike tools.

After punching the corner holes, begin next holes with the multi-prong chisel. Space the first hole (from corner) the same width as the punch blade (3/32").

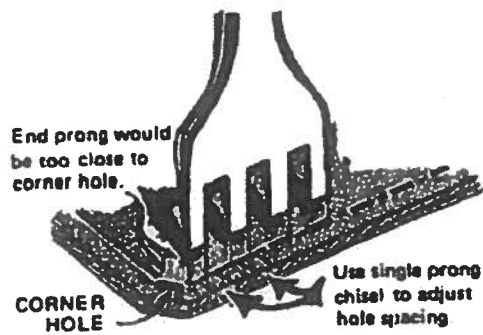


To properly align succeeding holes, place the first prong in the last hole and punch again.

Continue punching to the next corner. A carefully drawn

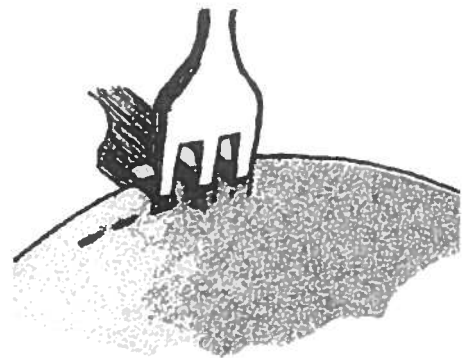


guide line will help you keep the holes in a straight line.

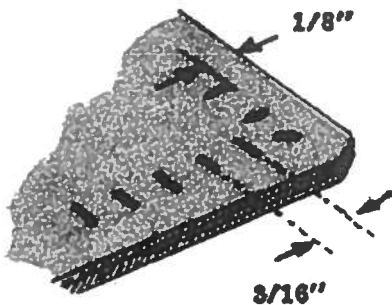


If the holes would not be evenly spaced as you near the corner, use the single prong chisel and adjust the spacing. Try to keep the holes as even as possible. Unevenly spaced holes cause unsightly, irregularly laced edges which detract from the appearance of the finished article.

Punching holes in a circle is easily accomplished by using a 3 prong chisel. Following your guide line, punch 3 holes. Then set the first prong of the punch in the last hole. Punch again. Continue punching until you are finished. Even the spacing for the final holes with a single prong chisel, if necessary.



The same technique is used with the 4-in-1 round hole punch.



Note: If thonging chisel is used for punching holes for the running stitch, the single prong punch should be used and holes turned 90 degrees to edge as shown below.

## How to Lace

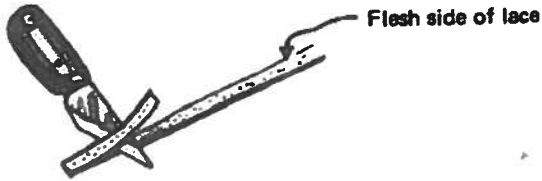
The main reason for lacing is to attach two or more pieces of leather together. It is also used to give a decorative effect.

When lacing, always lace with the front or finished side of the article facing you. It is suggested that you go left to right. Left handed leathercrafters will have to experiment to find the best method for them which gives satisfactory results.

## Threading the 2 Prong Lacing Needle

Load two yards of lacing in the lacing needle at one time. Working with longer pieces of lacing will be difficult and can cause the lacing to wear and become frayed as it is pulled through the lacing holes.

Skive (cut off in thin layers) one end of lace with a sharp knife.

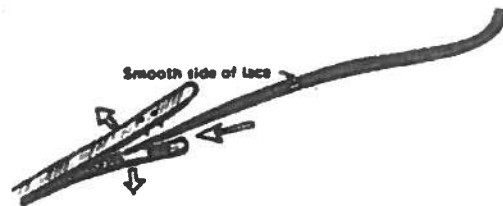


Point the skived end as shown:



Spring the threading end of the needle open. A thin bladed knife can be used. (May want to have an adult help with this).

Insert pointed end of lace into the needle, smooth side against prongs.



Close needle on lace and tap lightly with a mallet, or a small pair of pliers, so that prongs pierce the lace and lock it in place. Needle can be unlocked with the edge of a thin bladed knife.

## Threading the Life-Eye Needle



Cut lacing to sharp point, but do not skive.

Insert pointed end of lace in needle eye and twist clock-wise several times until lace is secured firmly.

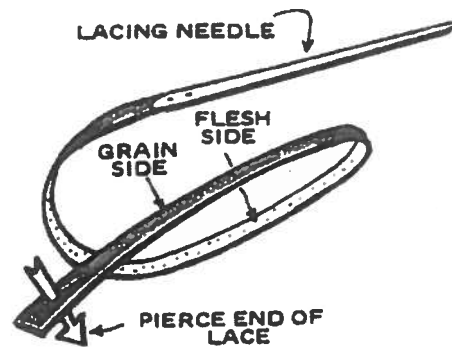


To remove lacing from needle eye, twist lace counter clock-wise.

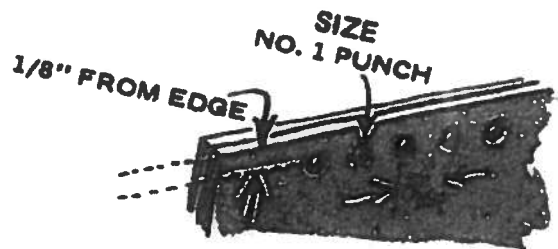
TIP: If lace is stuck inside the life-eye needle, do not dig out. This destroys the threads. Have an adult help you and carefully heat the needle with a flame so the lace will be released.

## Whip Stitch Lacing (Double Thickness of Leather)

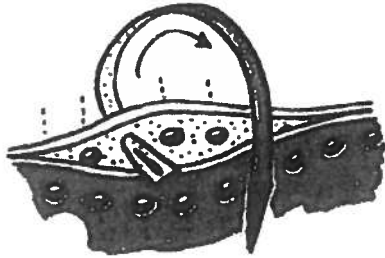
Thread needles, and then pierce opposite end of the lace with sharp knife, making 1/8" slit.



Make your lace holes if article is not pre-punched. Space holes about 1/8" from edge. Be sure they are spaced equally. Punch with the thonging chisel as previously described or with a rotary punch which makes round holes as shown in the figure below. The recommended spacing is given in the drawing.

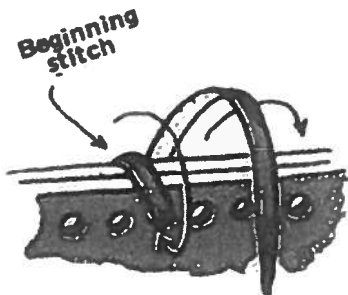
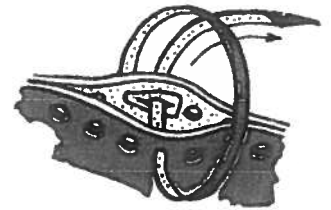


Whether you are using straight or round holes, the lacing techniques are the same.



Begin lacing by starting in between the two layers or leather. Leave about ½" at the end where you slit the lace.

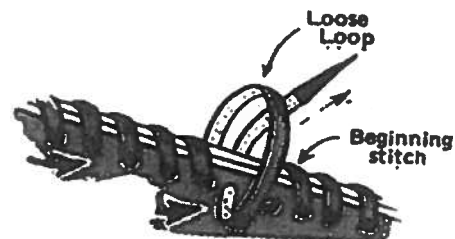
Push needle through the second hole, and then thread it through slit in end of lace and through the opposite hole.



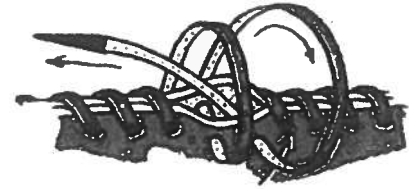
Pull stitch up tight. Continue lacing, tightening the lace as you go.

NOTE: When going around corners, **lace 2 times in each corner hole.**

Lace around the article, leaving a loose loop in the second hole from the beginning stitch. There will be one unlaced hole between your very first and the last stitch shown.

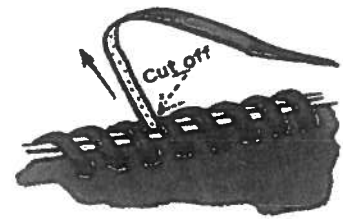


Spread the two leather layers and lace through the last hole, up between the leathers and through the first loose loop.



Pull first loop tight over end of lace.

Pull end of lace tight to take slack out of last loop. Cut off end of lace with sharp knife and tap all lacing flat with smooth-faced mallet.



## Whip Stitch Lacing (Starting and stopping when lacing does not connect)

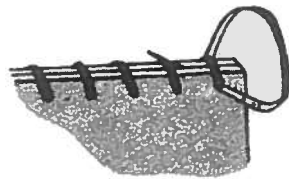
Begin lacing starting in between the layers of leather. Leave about 1/2" at the end.



Lace through the same hole, going on the outside of the previous lacing. Keep the lace from twisting. Pull the stitch tight to lock the lace.



Push needle through the second hole in the front piece of leather, the slit in lacing, then the second hole in back piece of leather. Pull stitch up tight. Continue lacing, tightening the lace as you go.



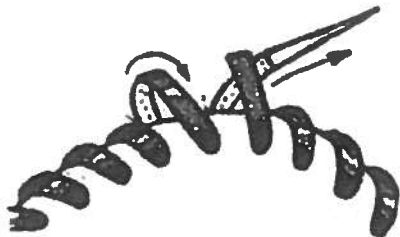
Push needle through the last hole as shown. Bring it up between the leathers and out between the lacing. Carefully cut off the end of the lacing.

## Whip Stitch Lacing (Single thickness of leather)

Begin lacing as shown below. Leave about 1/2" of lace at the end. Lace around the edge through each hole keeping smooth side of lacing down.

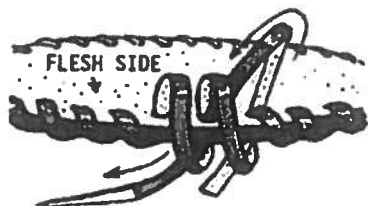


Continue lacing, pulling the stitches tight as you go. Do not allow lacing to twist.



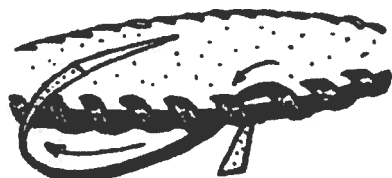
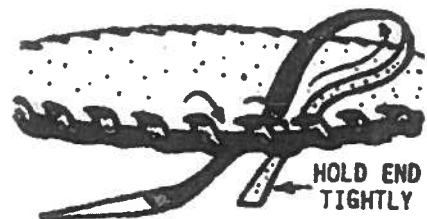
Lace through last hole.  
Leave this loop loose.

Lace through the beginning hole, under end of lace. Leave this loop loose.



Turn leather so  
flesh side is up.  
Push needle through hole of previous loosened stitch.  
Be sure needle goes on inside of lace.

Pull the two loose loops tight. Hold end from slipping.



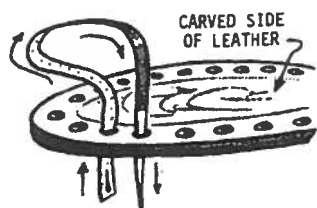
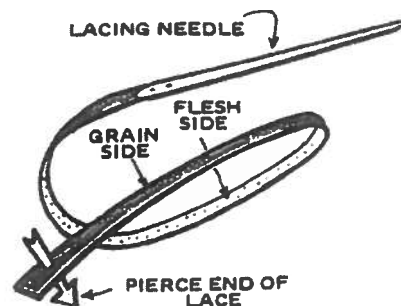
Pull end tight. This locks  
lacing ends.



Turn leather to  
carved side,  
carefully cut off lace ends with point of sharp knife. Tap  
lacing flat with mallet.

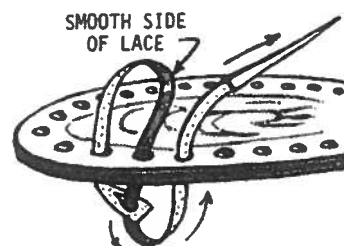
## Running Stitch Lacing (Single thickness of leather)

Thread needle, then pierce opposite end of the lace with sharp knife, leaving a 1/8" slit.

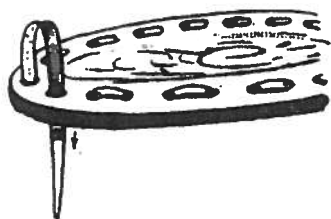


Push lace through hole from flesh side.

Run needle through slit in lace and up through next hole.



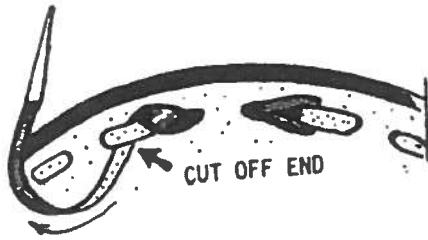
Pull lace tight to lock end. Continue lacing over and under through holes.



Lace completely around article. Pull stitches tight as you go and lace through last hole.

Push needle under last stitch on flesh side. Pull lacing up tight.



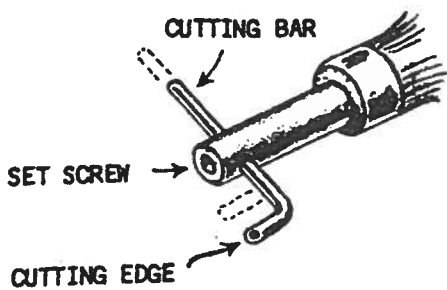


Pull end of lace up tight. Carefully cut off end with point of sharp knife. Tap lacing flat with mallet.

## Saddle Stitch

The saddle stitch is generally used in sewing heavy leather. It is the most common method of handstitching shown in kits.

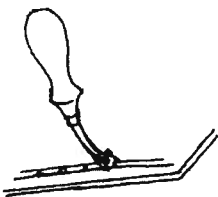
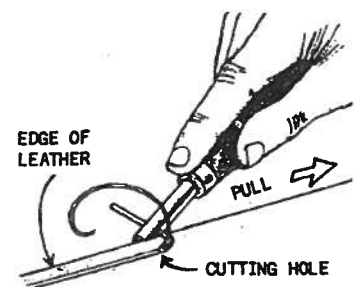
With a leather compass gouge or an adjustable stitching groover, cut the channel in which the stitch will rest.



The cutting bar of the stitching groover is adjustable. Loosen the set screw in the end to adjust.

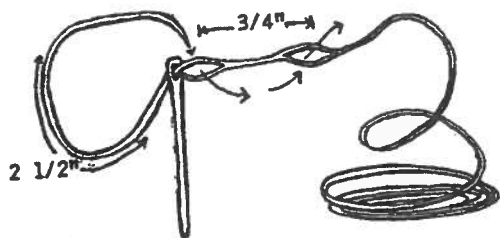
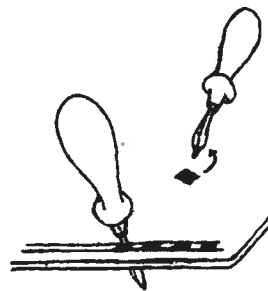
Turn the flat surface of the bar toward the set screws so the bar will not turn when gouging leather.

Hold the tool as shown and pull it toward you.



Mark the stitch spaces within the groove using the over stitch wheel stitching marker.

Use a diamond pointed awl to punch the lacing holes.



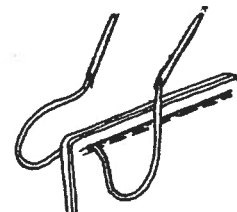
Two harness needles are required and one length of thread as long as your extended arms. Place one end of the thread through the eye of the needle. Twist the thread open near the eye and pass the short end through the opening. Twist open again about 3/4" further down and pass the end through again.

This will lock the thread in place. Repeat for the other needle on the opposite end of the thread.

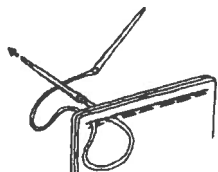


Pull thread over beeswax several times to fuse thread together.

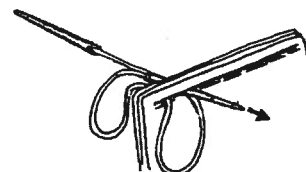
Start by placing needle through first hole. Even up the ends of the thread.



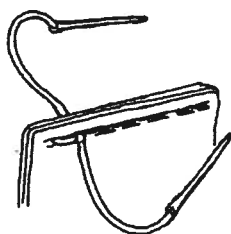
Push one needle through second hole.



Push other needle through same hole.



Grasp thread on each side and pull tightly.



Continue stitching in this manner, until last stitch is completed. To end, back stitch through two holes. Cut thread off flush with the leather.

# References and Resources

## Look For Ideas

Your local hobby, craft or leathercraft supply house is an excellent source of ideas, assistance and supplies. Look under the following headings on the Internet or yellow pages:

Craft Supplies

Hobby Supplies

Leather Goods

Leatherworking

Tandy/Leather Factory

For free instructional videos go to the following sources:

The Tandy/Leather Factory main website is: <http://www.tandyleatherfactory.com>

YouTube: <http://www.youtube.com/Tandy>

Facebook: <http://www.facebook.com/pages/Tandy-Leather-Factory/>

Also check [www.leathercraftlibrary.com](http://www.leathercraftlibrary.com) for e-books.

A leathercraft catalog is always helpful. Look in your library for leathercraft books which have pattern ideas.

Your 4-H leader has a Leader's Guide for 4-H Leathercraft that lists helpful reference books and visual aids.

## START YOUR OWN LIBRARY

You may want to start your own leathercraft reference library. Your leader may have some suggestions or look at:

Crafttool Tech –Tips by Al Stohlman

How to Carve Leather by Al Stohlman

How to Lace

Ken Griffin's Scrapbook

Leathercrafting: Procedures and Projects

**Be sure to look at the exhibit requirements found on the 4-H website at: [www.colorado4h.org](http://www.colorado4h.org).**