



LEATHERCRAFT

II



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Persons seeking admission, employment, or access to programs of the University of Wyoming shall be considered equally without regard to race, color, national origin, sex, religion, political belief or handicap.

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REQUIREMENTS

Second Year

1. Make an exhibit of different kinds of craft leather. Explain a little about each type, its background, and how it's used.

OR

Make an exhibit of different ways of decorating leather. Make samples.

2. Give a demonstration on one of the basic steps in making a leather article.
3. Make at least two articles using carving and stamping. Use some figure carving on at least one article. These articles should be more difficult than those done in Unit I. (A pre-cut kit from a leather company may be used for no more than one article and should be labeled and classified as a pre-cut kit.)
4. Make one article using any method of decorating leather other than carving and stamping. (Exception: If an article is made using filigree, it may be carved and stamped.)

OR

Make one article from soft leather, such as:

- a. Moccasins--not pre-cut kits.
 - b. Vest
 - c. Blouse, shirt
 - d. Drawstring bag – (NOT pre-cut kits)
 - e. Gloves (see reference list for book on glovemaking)
5. Exhibit all articles made.

Advanced — Third Year or More

You may carry the leather project for as many years as you desire. The articles you make should be more difficult than those made previously, and should show improvement in skill.

Make at least three different kinds of articles each year. Use an original design for one article, if possible. Exhibit all items made.

Suggested articles for advanced leather work are:

Briefcase
Bowling bag
Saddle
Archery quiver
Gun case
Jacket
Lady's purse (with inner
compartments and lined)
Card table cover

GENERAL INFORMATION

History of Leather

Earliest authentic historical records of leather go back nearly 5000 years. From carved stone tablets left by the Egyptians of those times, we learn that they knew about leather and valued it highly. They even considered it worthy of tribute to their kings and gods. Leather articles, found in Egyptian tombs, known to be over 3000 years old, were perfectly preserved. There are numerous references to leather in the Bible. The legends and tales of the ancient Greeks and Romans contain frequent references to leather. At one time among the ancient Romans leather was used as the basis for their money.

Early American explorers found the Indians quite skillful in the art of tanning leather. It is not known just how or when they gained their knowledge and skill. The work was done chiefly by the squaws. Different tribes used different methods to prepare the leather. They were especially skillful in making buckskin. This type of leather has never been equaled for its softness or its ability to turn water.

Leather workers also were found among the earliest American colonists. The ancient Hebrews had developed the method of tanning leather by the use of oak bark. No improvements were made in this method of tanning until the latter part of the 18th century. People then learned that oak bark was not the only source of tanning materials. They found that hemlock, oak, and chestnut tree bark as well as other plant substances were all satisfactory. This knowledge was important to the American leather worker since hemlock trees were plentiful in the new country.

Toward the end of the 19th century, an American chemist discovered that chromium salts acting on hides produced a leather different from that produced by the bark tanning method. Other experi-

ments proved that it was necessary for this new type of leather to be treated with soaps and oils. Thus our modern method of chrome tanning was developed.



Tanning

Leather workers classify pelts of animals into three categories:

1. Hides which come from large animals such as cows.
2. Kips which come from undersized animals of the same groups.
3. Skins which come from small animals, such as calves, goats, sheep.

Pelts sent to the tanner must be treated to prevent decomposition. This is usually done by salting or drying. The tanner cannot work the dried pelts as easily as those which have been salted.

Pelts entering a tannery go through many different steps or processes. They are first soaked in either clear water or a weak chemical solution. This removes dirt, blood, and salt, and makes them pliable. Next, to loosen the hair, they are immersed in a mixture of lime and water and left there for a period of time. The pelts are then removed and dehaired either by hand or by machine. Next, the fatty material is removed from the underside, usually by a machine. After the fleshing process, the pelts must be delimed. This is done by washing

and rewashing them in running water to remove the surface lime. If complete deliming is desired, they are placed in an acid solution. After the pelts have been delimed, they are ready for the actual tanning process.

In **vegetable tanning** the pelts are hung on stocks and immersed in vats containing water and extracts from hemlock, oak, sumac, or other plant materials. The liquid is made stronger each day by adding more tanning extracts until the skins are thoroughly tanned. In **chrome, or chemical tanning**, the pelts are immersed in solutions of water and common salt and acids to open up the skin pores. Then when the chrome salts are added, they can penetrate rapidly and completely, producing chrome tanned leather. It often takes months to tan leather by the vegetable method, but only a few hours by the chrome process.

After coming from the tanning solution, the leather must be washed and pressed to smooth it out. Splitting to change leathers to thicknesses suitable for shoe uppers, upholstery, or leathercraft, is usually done at this stage. It involves a machine with a horizontal blade against which the leather is drawn by rollers. The machine is so accurate that the splits do not vary more than 1/500th of an inch. The outside of the leather is called the grain side and inside is called the flesh side. Splits near the grain side are stronger and better than those on the flesh side. Oils, soaps, and greases must be worked into the leather to keep it soft and pliable. The leather is then ready for the finishing processes, such as polishing.

At present, leather is polished by several methods. In one method the leather is first sponged with a special preparation. It is then rubbed with a glass roller under great pressure. If a high polish is not desired, the leather is polished by roller brushes.

Fancy or embossed leathers are often used in leathercraft. These have been embossed by stamping designs on the hides or skins with etched or engraved plates or rollers.

Suedes are formed by holding the flesh side of the leather against an emery wheel. This produces the nap or fine pile characteristic of suedes.

Kinds of Craft Leather

The craftsman can use a wide variety of leather in almost any color desired. Many leathers are embossed so the grain will imitate other and more expensive leathers. Here are a few of the most common leathers used in craft work:

Alligator. Genuine alligator comes in several shades of brown and mahogany. It may be used for billfolds and handbags. It cannot be tooled. Skins range up to 14 inches wide and 60 inches long.

Calfskin. This is an ideal tooling leather for billfolds, key cases, etc. It comes in all colors. The skins will range from 10 to 14 square feet.

Elkhide or Deerskin. These leathers are used for moccasins, belts, vests, jackets, gloves, shirts, and coats. Chaps can be made from elkhide. These skins generally come in only natural or brown, but can be dyed to any color by the tannery. They vary in size from 8 to 22 square feet.

Lambskin. This leather comes as suede or as embossed grains such as alligator, ostrich, and fancy designs. It is used for lining, purses, belts, and many other items. Skins vary from 7 to 9 square feet.

Latigo. Latigo is ideal for belts, handbags, and earth boots. Sides are 20-25 feet.

Live Oak Cowhide. This leather is ideal for belts and items that must withstand hard wear. Backs range from about 15-17 square feet and sides from 21-24 feet. You can buy them in many different weights (thicknesses).

Lizard. Genuine lizard may be had in all colors. It is not toolable and is used for billfolds and purses. The skins are small, around 9 inches wide to 17 inches long.

Morocco. Genuine Morocco goatskin comes in most colors. It is used for billfolds, linings, and bookbindings. Skins vary from 7 to 10 square feet. Morocco grain may be embossed on other leathers.

Ostrich. Genuine ostrich is expensive, but it makes beautiful billfolds, purses, and book covers. It comes in russet, brown, and black. Skins range from 10 to 14 square feet.

Pigskin. Genuine pigskin may be tooled but it is not advisable. It comes in either natural or black. It may be used for letter cases or purses. Skins range from 12 to 20 square feet.

Rabbit. Use to make children's clothes, trim boot tops, jackets, coats. Makes good linings. Average size is 8" x 15".

Sheepskin. This leather comes as suede, embossed grains, or tooling sheep. While tooling sheep does not tool as well as calfskin, it costs less than half as much. It can be used for suede purses, linings, bookmarks, and book covers. It

comes in all colors. Skins range from 7 to 9 square feet.

Skiver. A skiver is a thin split of leather generally used for linings. It is available in all colors and comes in sheepskin, calfskin, and cowhide. Skins vary from 6 to 12 square feet.

Steerhide. Next to calfskin, steerhide is the best tooling leather. It may be used to make all items. It comes in natural or two-tone colors and in different weights. Hides vary from 20 to 28 square feet.

Suedes. Suedes have many uses and come in all colors. Most suedes are made from sheepskin, calfskin, or goatskin. Antelope suede is now becoming popular for garments. Suede skins average from 7 to 9 square feet.

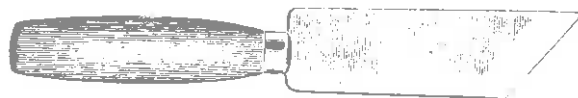
Tools

Many leather tools were designed for a special purpose or to make a special job easier. Buy tools as you need them. Some which are handy to have are:

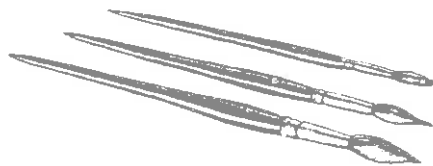
Skiving Knife (For skiving leather) (safety beveler)



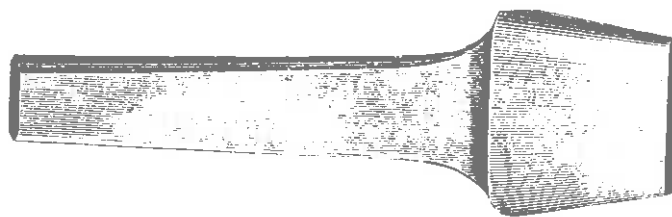
Beveled Edge Skiving Knife (Used mostly to skive or thin edges of heavier weights of leather.)



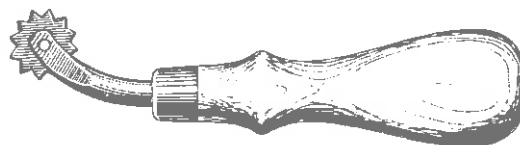
Dye Brushes



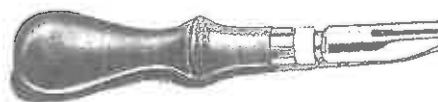
Bag or Oblong Punch (Easily punches buckle slots, bag slots, etc. in heaviest leather.)



Spacer (Sizes 5-6-7)



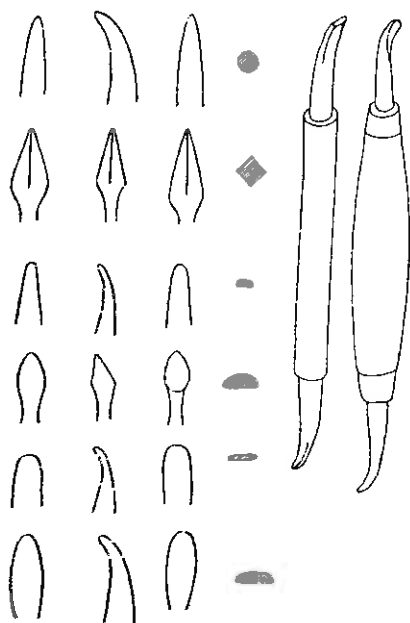
Adjustable Gouge



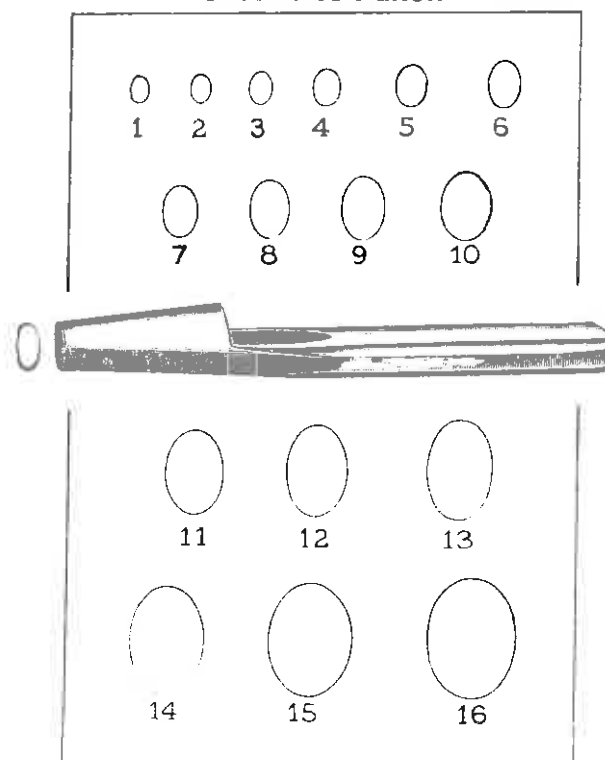
Edger (Sizes 1-2-3-4-5)



Modeler



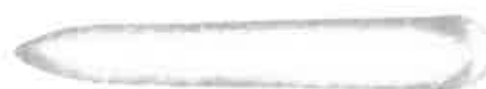
Oval Drive Punch



Four-in-1 Punch



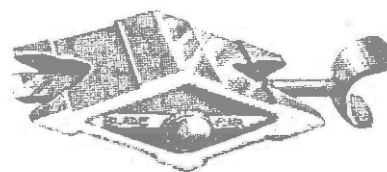
Bone Folder (Smooth finished white bone folder for pasting and folding. Six inches long.)



Creaser (Sizes 1-2-3-4-5)

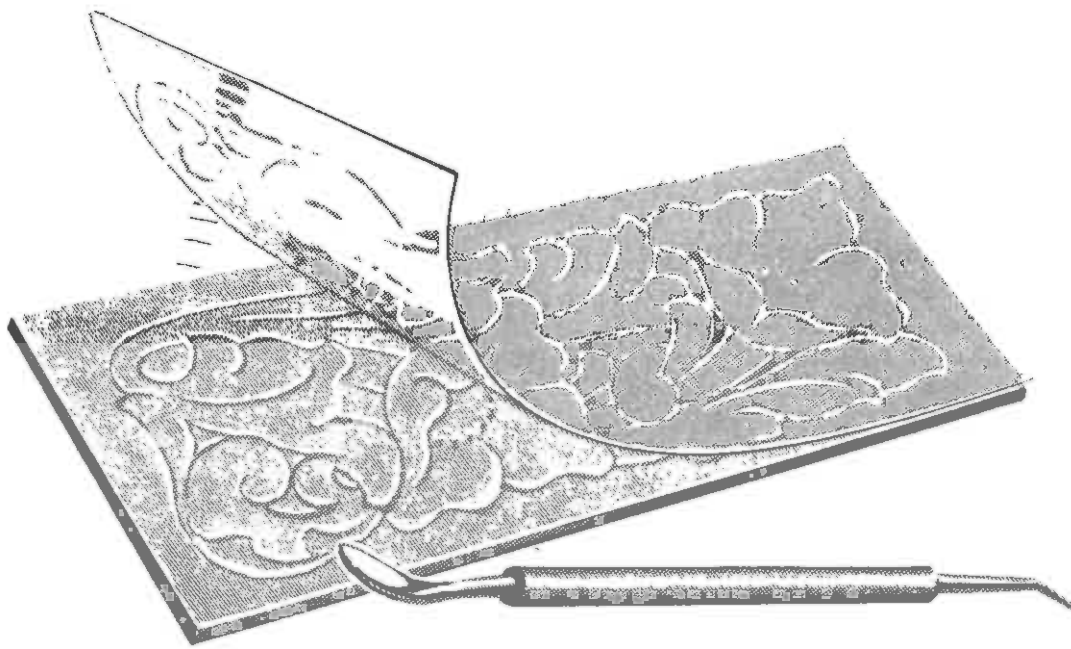


Swivel Knife Sharpener

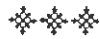


Embossing Wheel Carriage (Used for embossing designs on borders.)





“Craftaids” are plastic patterns and may be obtained for many items. They furnish a quick way of transferring designs to the leather.



Ways to Decorate Leather

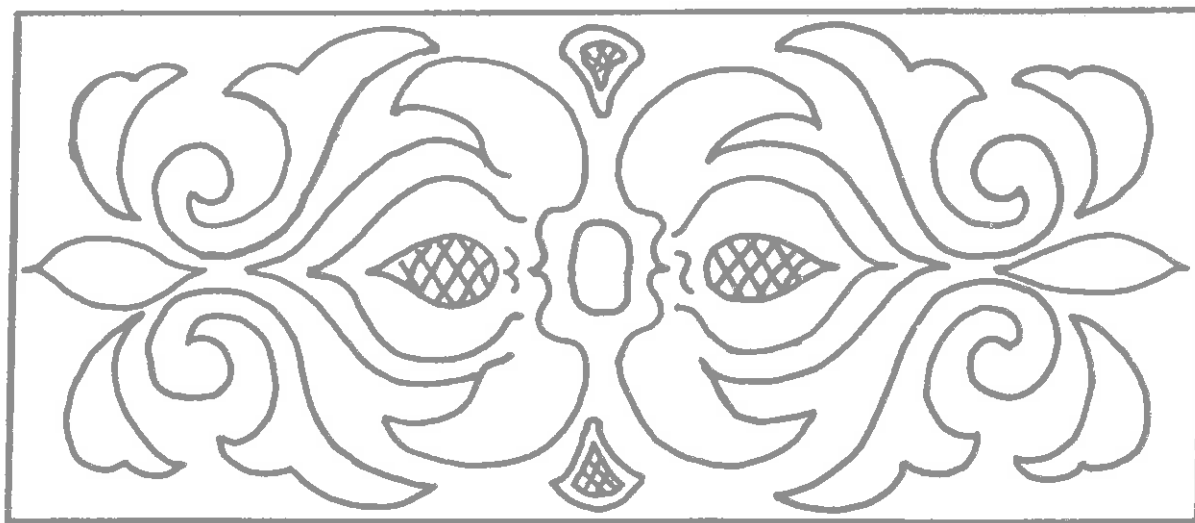
Repousse' or Embossing

In repousse' leather work, the design is brought into relief by raising it above the surface of the background. For accurate results transfer the design to both sides of the leather. Both sides must coincide exactly. Place carbon paper, carbon side up, on the work table. Moisten the leather and put it flesh side down on the top of the carbon paper. Put the paper pattern with the design on top of the leather and transfer the design.

If desired, tool the background down, then turn the leather over and go over the carbon lines. After this, hold the leather in one hand and with the ball-end tool, model the parts of the design to be raised by pressing on the flesh side of the leather.

Another method is to push the leather up by working it on a piece of felt. By keeping the flesh side moist and by using sufficient pressure, you can get a high degree of relief. After working on the underside, turn leather over and work on top-side, pressing close beside the lines to sharpen them. Repeat this process several times to make sure that the leather will retain the embossing evenly and distinctly after it has dried.

To get a higher degree of relief in repousse', fill depressed parts of the design with cotton and hold it in place with rubber cement. When the filling is completed, cover the whole under surface of leather with a layer of paper skiver or cloth. This method is used extensively in book covers and underarm bags.



Design for Repousse' or Embossing

Inverted Leather Carving

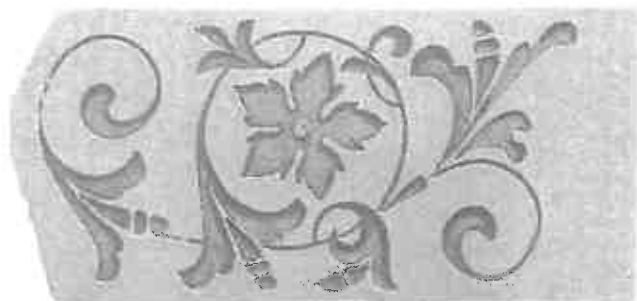
Inverted leather carving can be classified into three groups:

- a. Silhouette stamping
- b. Inverted carving
- c. Rough-out carving

Silhouette Stamping

Silhouette stamping consists of cutting only the outlines of the design, and beveling and matting down the design *within* these lines. Few stamping tools are needed as the entire operation consists of matting down the leather *inside* the design outlines. Silhouette designing should be of fine line

with few, heavy overlapping segments or large, open areas requiring excessive matting.



Silhouette Stamping

Inverted Carving

Inverted carving differs from the regular raised carving in that the design itself is depressed (not raised), being beveled and stamped down *inside* the outlines. The background areas remain raised and untouched — just in reverse of the usual beveling and stamping methods.

Inverted carving designs can range from the very simple to very intricate with the use of many stamping tools. Most of the usual leather carving patterns do not work out too satisfactorily with the inverted carving techniques, especially where too many heavy overlaps occur. In general the design should be more open in the background areas to permit freedom of design and more pleasing effects.



Inverted Carving

Rough-out Carving

Rough-out carving is actually no different from regular methods; only the effect is different in that the design is carved and stamped in the *flesh* side of the leather, rather than the customary *grain* side. After carving and stamping, the leather is sanded with coarse sandpaper, producing a suede-like finish.



Rough-out Carving

For further instructions and patterns on inverted leather carving, see Al Stohlman's book on "Inverted Leather Carving".

Leather Sculpture

For leather sculpture use light-weight (3-5 oz.) live oak cowhide. Water will penetrate this leather quickly, making folding and shaping easy. Light-



weight leather is needed for projects where you want deep, sharp folds, but you can use a heavier leather when you do less folding and contouring.

Apply water to the leather with a sponge or spray device until the moisture penetrates all fibers. All leather to dry until most of the surface moisture has evaporated, but inner fibers should still be moist. If leather is too wet, it will not retain folds and impressions; if leather is too dry, it will not fold properly.

Many different effects can be obtained by painting the background different, by dyeing or antiquing the leather, or by the finish applied to the leather when completed.

Leather and Macrame'

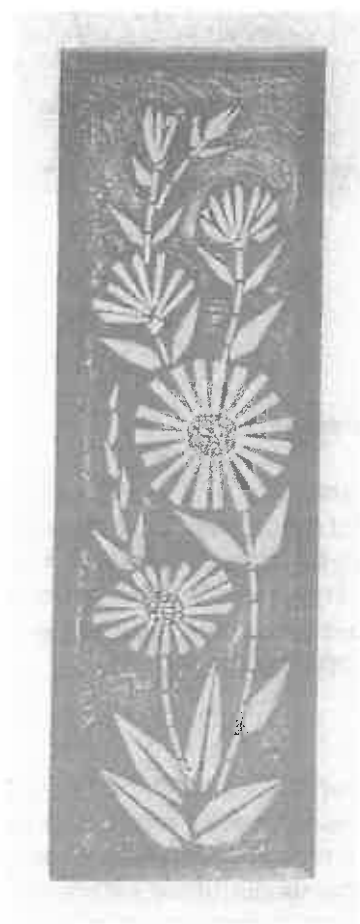
Suede leather and macrame' (knot tying) make a good combination for a purse or hat. You can obtain patterns for them, or you can develop your own pattern. Jute or other macrame' cord, and beads, will give a modern look to your leather article.



Macrame' and Leather

Collages

Make a collage by gluing pieces of leather on a panel made of plywood, masonite, or heavy cardboard. Cut the leather to suit your imagination — geometric shapes, abstracts, flowers, fish or animals, or whatever. Arrange your pieces on the frame background; then glue with transparent white resin glue. Apply glue to flesh side of leather and press into place.



Collages

Nature Designs

Use nature designs on a latigo-like leather (one trade name is Nature-Tand) to get a different effect with your finished article. The leather is tanned by a different process than ordinary, and can be stamped using only a very little water.

Create your design, using just the stamps, and occasionally a few swivel knife cuts.

To complete your article, use a dyeing technique that allows you to apply dye to the surface of the leather to contrast with the stamped and natural impressions in the leather. (See page 31 for method of dyeing.)

Demonstrations

Preparation of Demonstration

1. Decide what you would like to demonstrate, then be sure you know how to do it well yourself.
2. Gather together all materials needed — tools, leather, patterns, etc.
3. Charts can be good visual aids if they are used to place emphasis on a step-by-step method.
4. Be sure your audience can see what you are doing. Sometimes a mirror can be used to good advantage to reflect your work in front of a large group.

Suggestions for Demonstrations

- • • • • How to carve.
- • • • • Use of tools in stamping.
- • • • • How to lace a leather article.
- • • • • Cementing linings and edges.
- • • • • Setting a bag plate.
- • • • • Filigree work.
- • • • • Figure carving.
- • • • • Dyeing.
- • • • • Sewing suede leather.
- • • • • Any other process used in leather work.

BASIC SKILLS

Hand & Machine Stitching

Machine Stitching

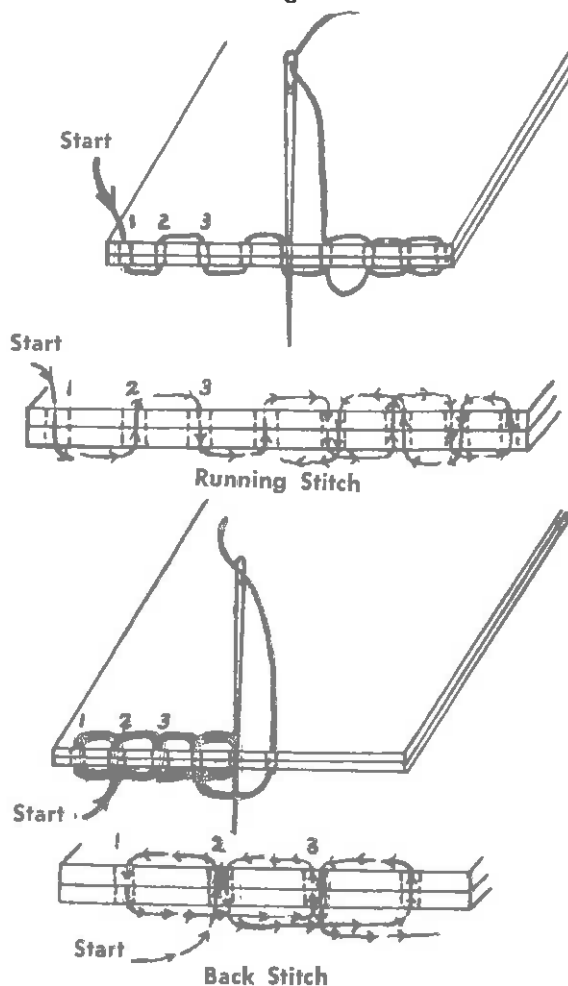
The ordinary sewing machine found in the home can sew leather. Machine sewing is used to fasten zipper to leather, to sew gussets, purses, billfold pockets, etc. The leather cannot be too thick or you will encounter trouble. A used sewing machine for heavy work can often be bought at a sewing machine shop.

1. Place a straight No. 19 needle in the needle clamp and tighten. Be sure the flat side of the needle faces the right way, and that the thread will lie in the long groove of the needle during the sewing. Use an E shoetwist machine-silk or linen thread of about the same weight. Silk thread will work much better on the machine, since it is not as stiff as linen thread, but by dropping the needle about one-half the thickness of a dime, better results will be obtained with linen thread.
2. Fill the bobbin and replace it. Then thread the machine correctly and check for the proper tension.
3. Set the stitch regulating lever or screw so that the machine will sew nine stitches per inch for zippers in notebooks or for sewing where the leather is very thick. Too many stitches per inch will cut the leather.
4. Pieces of leather to be sewed should first be cemented together. This will keep the leather from slipping and will keep suedes from stretching.
5. Start sewing by laying both ends of the thread back under the pressure foot. Place the edge of the leather just far enough under the pressure foot so that the first stitch may be taken. Lower the pressure foot and begin sewing.
6. To finish the sewing, stop the machine before reaching the end of the seam. Raise the pressure foot and remove the leather by pulling it straight back away from you. Leave enough thread to tie the ends and to prevent the thread from pulling through the needle.

Hand Stitching

Since a sewing machine isn't always available, it is well to know how to hand stitch. Hand stitching is often better for some leather projects than machine stitching — especially for those with hard-to-get-at corners. Practice on scrap leather.

1. Locate and draw a very light line with a pencil for the row of stitching holes. On small and light weight work, this line should be $\frac{1}{16}$ inch in from the edge of the work. If the work is heavier and larger, this line may vary up to $\frac{1}{8}$ inch from the edge.
2. Determine how many stitches per inch are to be made. For light work there should be



8 to 10 stitches per inch, for heavy work 5 to 6 stitches per inch. Place on a clean, smooth, soft board. Use the correct space marker to cut the holes through light weight leather. A stitching punch may be used on heavier leather by holding it in a vertical position and tapping it lightly with a wooden mallet, just cutting through the leather.

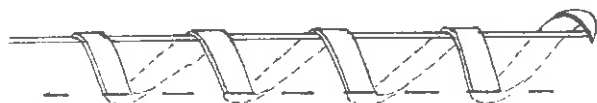
3. For stitching small projects made from light weight leather, use a common sewing needle, size 5, and buttonhole twist silk. Use a larger needle and linen thread for larger projects made from heavier leather. Linen thread should be waxed before it is used by pulling it through a piece of bee's wax.
4. Two needles and two sets of string give a tighter stitch.

Two-Color Lacing

Here is a method of two color lacing which goes well with filigree work. The basis of this method is the whip stitch.

Do the first two rounds of the lacing with a whip stitch, skipping every other hole. (You must have an even number of holes for this type of lacing for if there is an uneven number, the holes show where the lacing is joined.) Corners of the project should be rounded.

Use one color in the first two rounds, then another color in reverse, as in Step 3. You can also make another design by using the same color in each hole.



Step No. 1—Start with a whip stitch, skipping every other hole.



Step No. 2—For second round, lace holes skipped in same manner, using your other color lace.



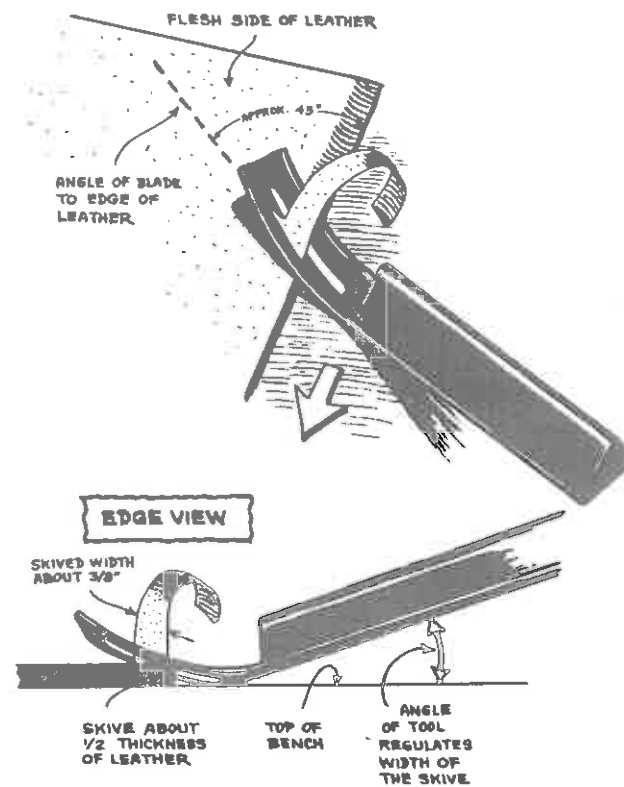
Step No. 3—After completing No. 2, reverse direction, using system of through — under — over — under.



Step No. 4—Lacing completed by reversing BOTH colors.

Skiving

Skiving will reduce the thickness of the leather in areas where several pieces will join or where the leather will be doubled over and cemented to make a facing. This paring down of the thickness is done on the flesh side of the leather only. A special safety skiver, head knife, or beveled edge knife is used. Places where skiving would be helpful include belt ends which must pass through a buckle or the main part of a handbag where the gusset is to be joined.

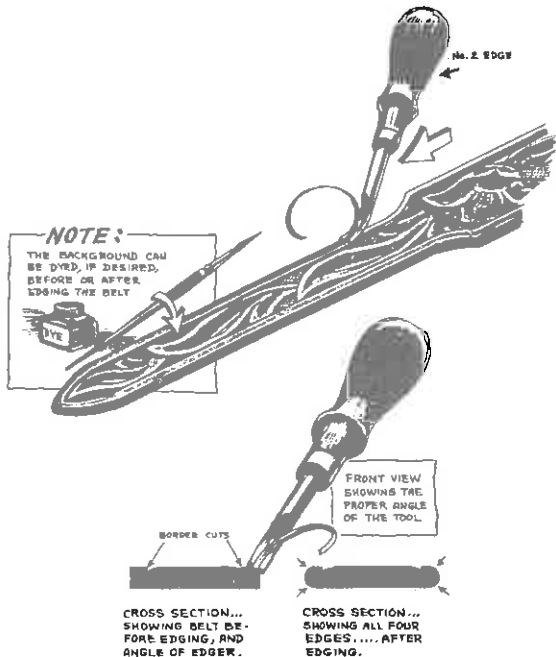


Border Lines

To cut border lines in belts, straps, or handles, use a swivel knife and straight edge. Cut a line about 1/8 inch from each side. You can use a creaser or cutter designed just for this purpose.

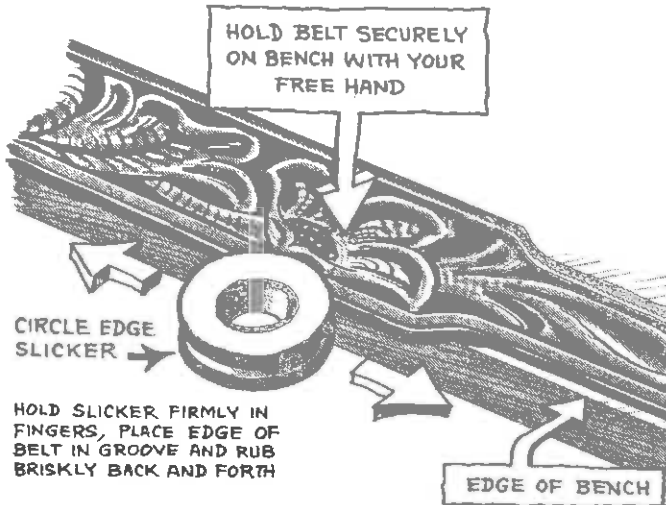
Edging

For a professional appearance always use an edger to round off edges that are not to be laced. The edge beveler cuts only at the proper angle and is safe to use.



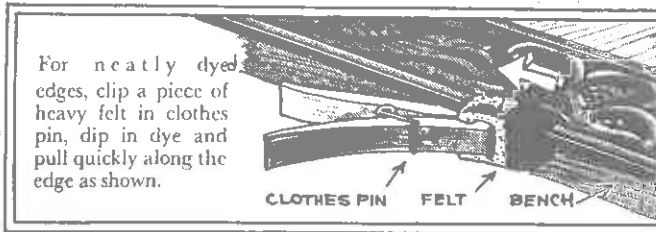
Burnishing the Edges

Burnishing means to smooth the fibers along the edges of a project, giving them a rich brown



color. Use this technique on belts, straps, and other edges not covered with lacing. Moisten a sponge with water and wet the edges to be burnished. Hold the project securely (on strap-like projects, lay them on a table or bench with the

edge sticking out), and rub a circle edge slicker rapidly and firmly over the edge. If the project has edges which are to be dyed, apply the dye before you burnish to allow greater penetration of the dye into the leather.



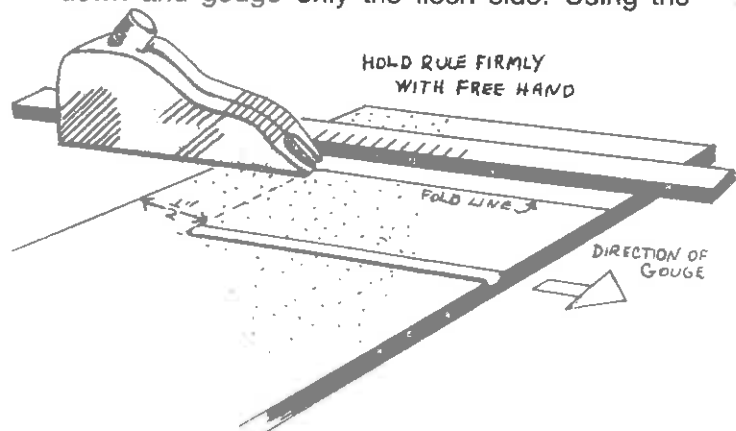
Folds

Marking the Fold Line

Be sure the leather has not stretched out of shape. Using a straight edge, make a line for the fold with a pencil. Make sure that the fold line is in the right place.

Gouging the Fold

Gouging removes some of the leather for easier folding. Normal gouging depth is about 1/2 the thickness of the leather. Lay the leather grain side down and gouge only the flesh side. Using the

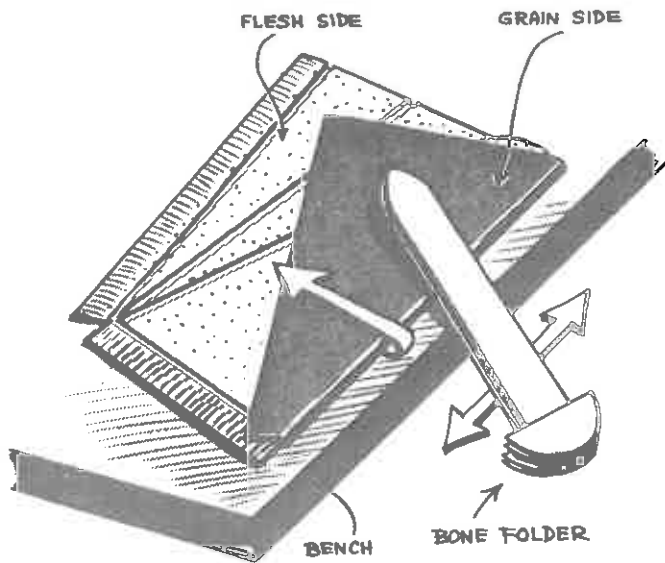


adjustable gouge, begin gouging about 1/2 inch from the end of the leather. Use a straight edge as a guide to hold the gouge steady along the marked line. Gouge to the end of the leather, turn the leather around and gouge the 1/2 inch of leather still at the other end. If you moisten the leather along the marked line, it may be easier to gouge.

Folding Gussets

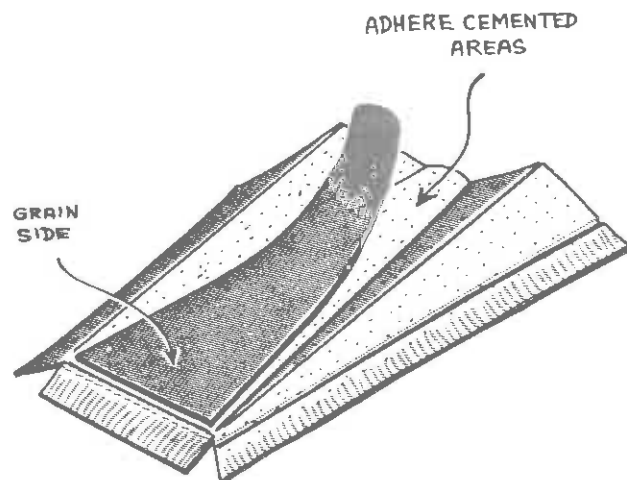
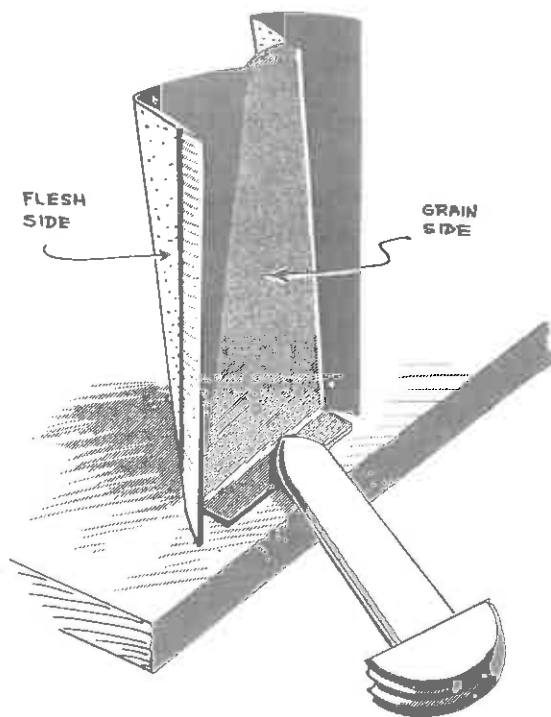
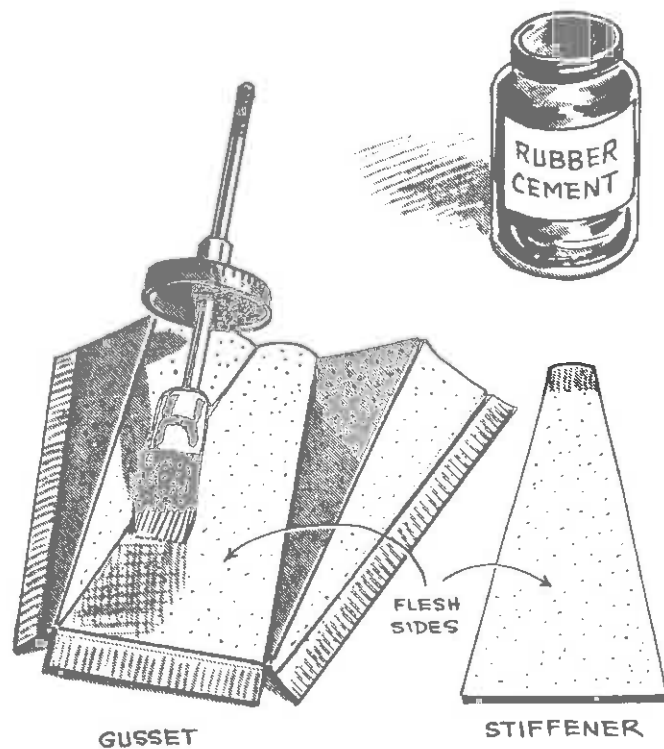
Dampen all the gouged areas with a sponge. Lay the project on a hard surface and use the bone folder to crease the leather along the gouged

marks. Where one end of the project turns out (as in a purse gusset), turn it up on the bench and use the point of the bone folder to make a



Cementing Stiffeners in Place

After all gouging and skiving has been done, allow the leather to dry. Carefully apply a thin layer of rubber cement over the flesh side of the leather where the stiffener is to be laid, and on one side of the stiffener. Begin at the bottom of the stiffener and carefully place the pieces together. Take care to avoid getting any cement into gouges or holes.

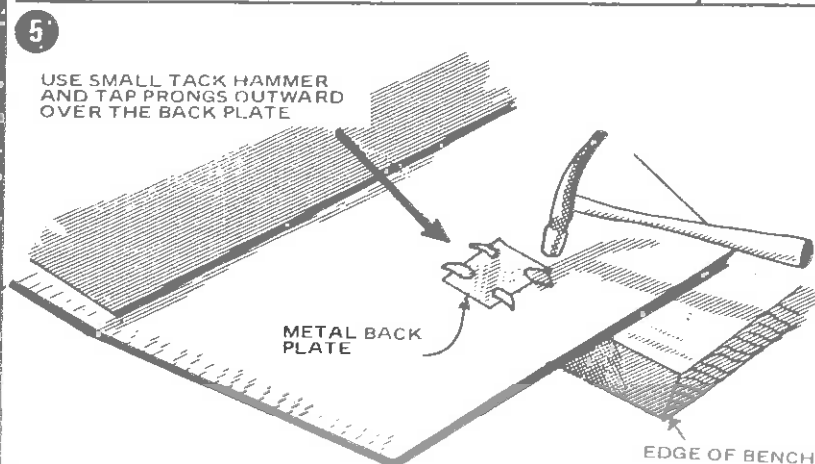
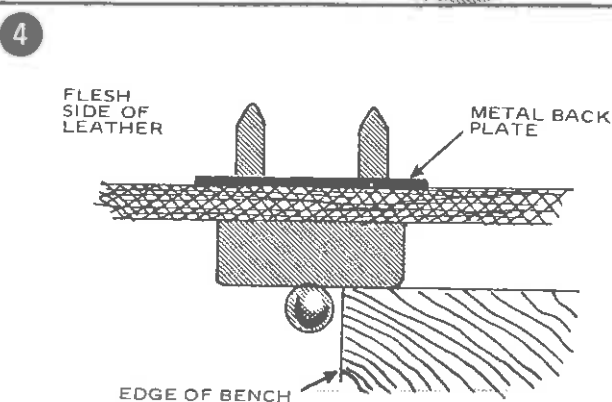
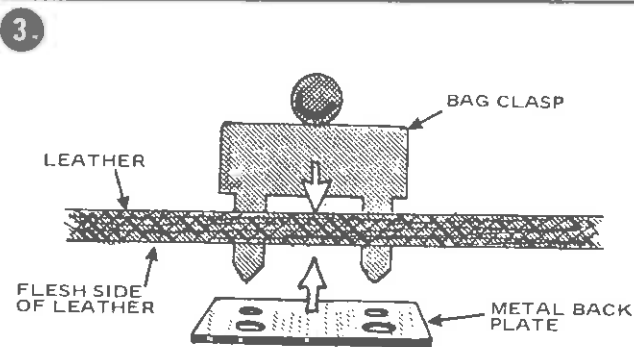
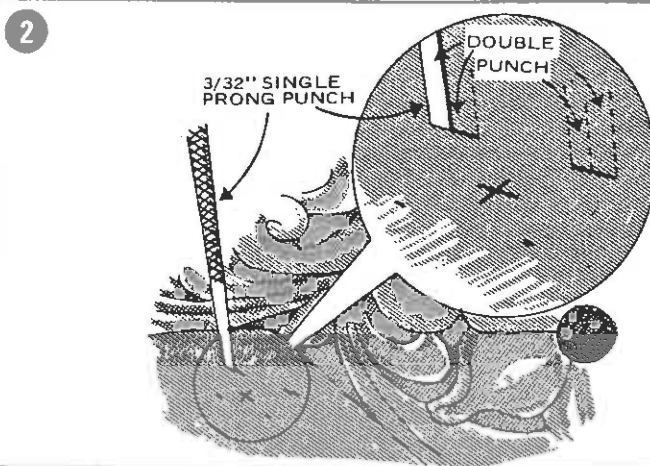
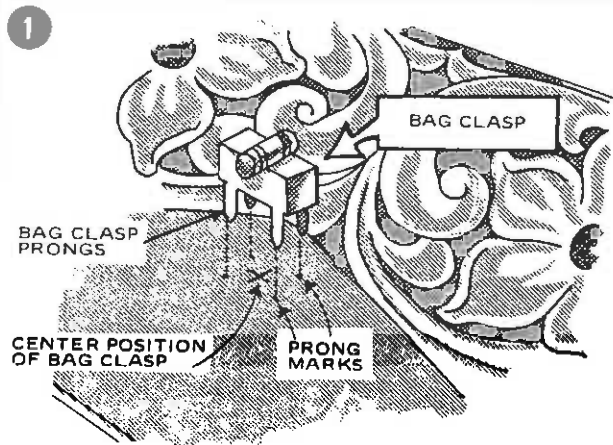


sharp crease. Avoid rubbing too hard with the folder, as this will be on the grain side and will burnish the leather.

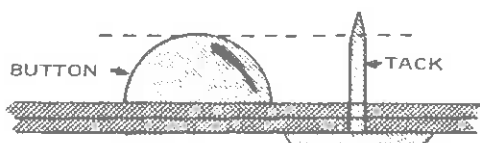
Installing Hardware

Mark position for clasp on the leather as indicated on the pattern. With prongs straight, position clasp over mark and press firmly enough to make indentations from the prongs. Remove clasp and use a No. 1481 thonging chisel (size 1/8") to punch holes for prongs. Place prongs through the holes and fit back plate over the prongs. Bend prongs down over the back plate. Install strap hangers the same way, except that no back plates are used.

To install a bag clasp eyelet, fold over the flap and pencil mark center of clasp. Open flap and lay it flat. Position eyelet on leather and draw around the inside with a pencil or stylus. Cut out this area with a sharp knife. Place eyelet into slot from the carved side; turn, lining side up, and slip back plate into position. Fold prongs over, embedding in depressions, then secure with tap of mallet.



HOW TO SET KNOBBY RIVETS



Since leather will vary slightly in thickness, you should place Knobby button beside installed tack and check to see that it does not exceed height of button. If it does, as illustrated, clip end of tack to insure proper fit.

Joining Pieces

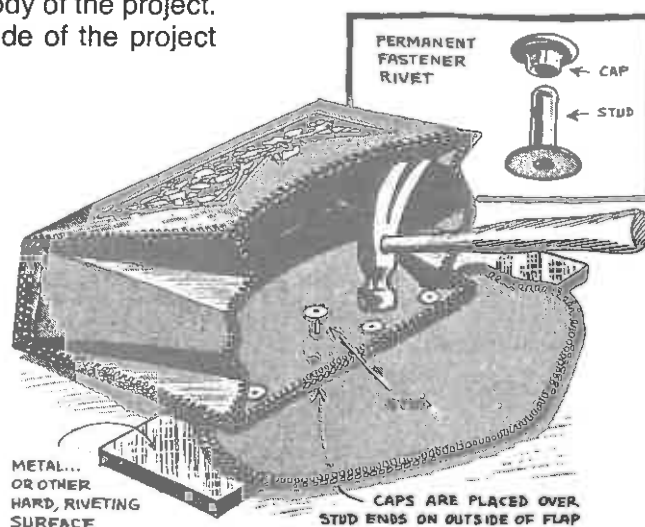
When two leather pieces are to be joined, use a knife to scuff (rough-up) the edges of the leather. This is a necessity on finished or dyed leathers where cement will not adhere well. Scuff an area about 1/4 inch from the edges. Apply two coats of cement to each edge to be joined. Let them dry before joining them. Carefully align the pieces and press together. Sometimes a mallet is helpful to tap down the edges.

Attaching Flaps and Extra Pieces with Rapid Rivets

Punch the rivet holes in any flat piece before that piece is laced to the main body of the project. Position a rivet cap on the outside of the project

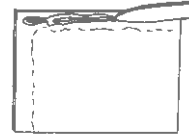
with the raised portion in the hole. Lay the project down on a hard surface, such as metal, and place the stud of the rivet down through hole into cap. Strike the stud of the rivet hard with mallet to firmly set it.

Knobby rivets can be used on the corners of handbags, bowling bags, etc., to prevent scuffing and marring the bottom of the bag and to help prevent lacing from wearing through at the bottom. Check the length of the rivet post and if it is too long, cut it off before installing.

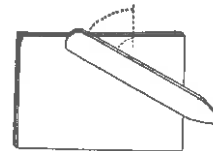


Cementing a Lining

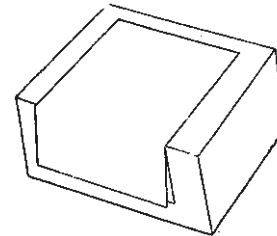
Apply cement to the skived edge of an article.



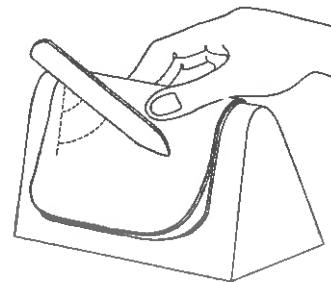
Smooth out any wrinkles in the lining by rubbing toward the edge with a bone folder.



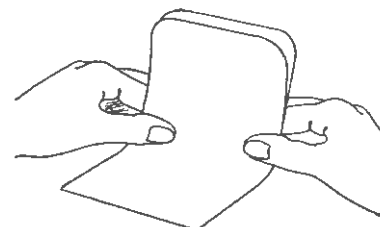
The lining is shown as attached to a folded article such as the flap of a bag. Cement the flat surfaces together at the edges, then place over a block or table edge with the lining against the edge at the point at which the fold is to be made. Apply cement along the fold and out to edges of flap. Then press carefully together, working toward the outer margin of the flap, smoothing out any wrinkles in the lining. Additional cement may be necessary if it becomes too dry to adhere.



A form is used here in the same manner. This may be shaped from a block of wood for small articles, or made of sheet metal tacked to end blocks of the proper size for larger purse flaps.

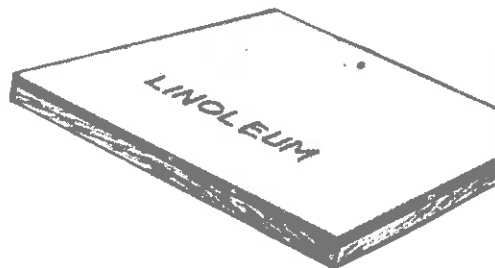
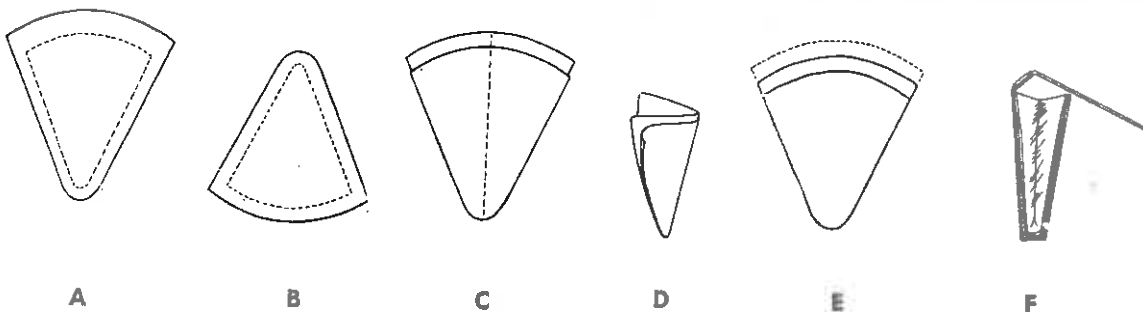


The same thing may be accomplished without a form as indicated in this picture. Here the lining is kept smooth and all bulging and wrinkles worked out between the thumb and fingers as the fold is gradually made. This method is satisfactory for small articles.



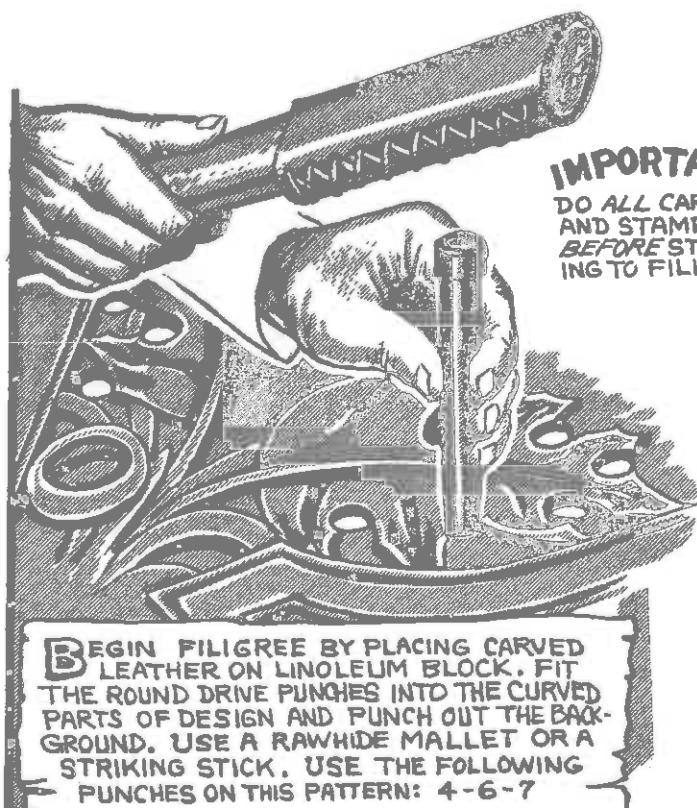
These pictures show the procedure in lining a gusset. Note that the top of the outside piece is skived back farther from the edge than the other margins. Picture "b" shows the shape of the lining. It is shorter than the outside piece and the depth of the skived edge is the same on all margins. Apply the cement to the edges and along the line of the fold; then place the lining in position as shown in sketch "c". Fold the whole gusset as

in sketch "d". Press the edges firmly and smoothly together while holding in the folded position. Fold the top edge of the outer leather, which extends beyond the lining, over the lining and cement it down. The gusset is now ready to be inserted in the proper position in the bag, as shown in sketch "f". Cement the edges of the gusset to the edges of the outside of the purse to hold them in position while the bag is punched and laced.



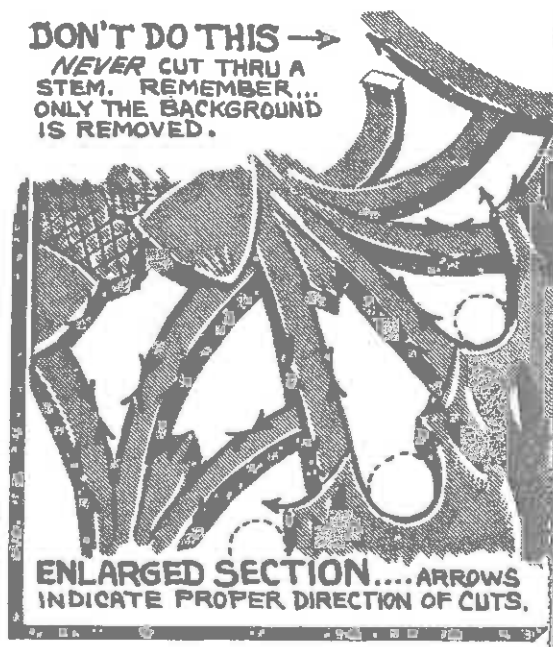
TIP
GLUE A PIECE OF HEAVY LINOLEUM TO A SMOOTH BOARD. THIS MAKES A GOOD CUTTING BLOCK FOR FILIGREE WORK, CUTTING STENCILS, PUNCHING HOLES, ETC.

How to Filigree



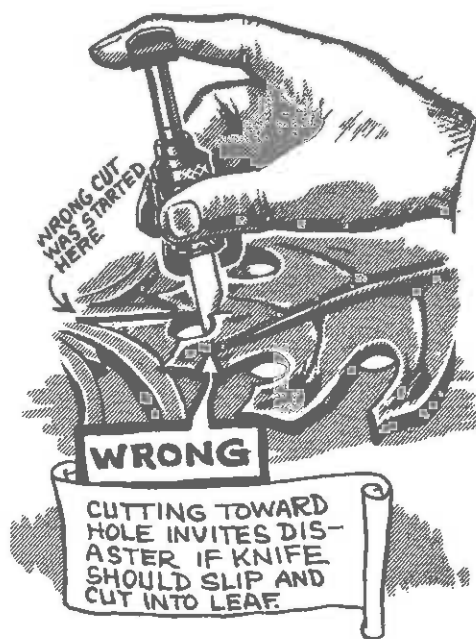
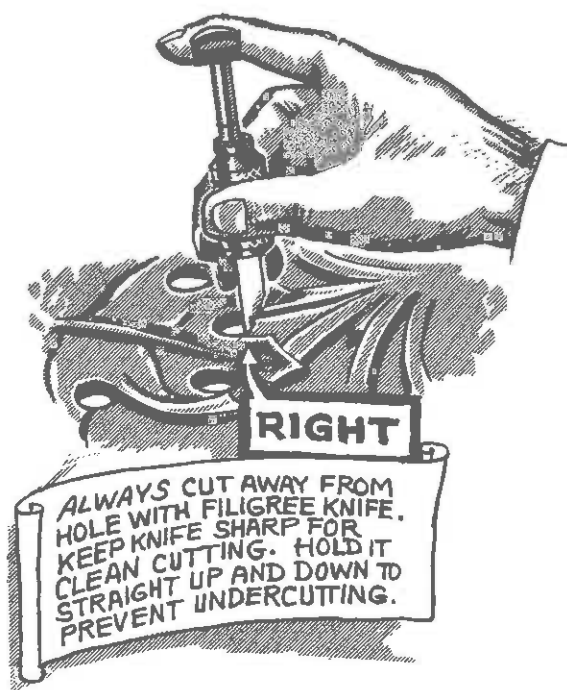
IMPORTANT!
DO ALL CARVING AND STAMPING BEFORE STARTING TO FILIGREE.

DON'T DO THIS →
NEVER CUT THRU A STEM. REMEMBER... ONLY THE BACKGROUND IS REMOVED.



BEGIN FILIGREE BY PLACING CARVED LEATHER ON LINOLEUM BLOCK. FIT THE ROUND DRIVE PUNCHES INTO THE CURVED PARTS OF DESIGN AND PUNCH OUT THE BACKGROUND. USE A RAWHIDE Mallet OR A STRIKING STICK. USE THE FOLLOWING PUNCHES ON THIS PATTERN: 4-6-7

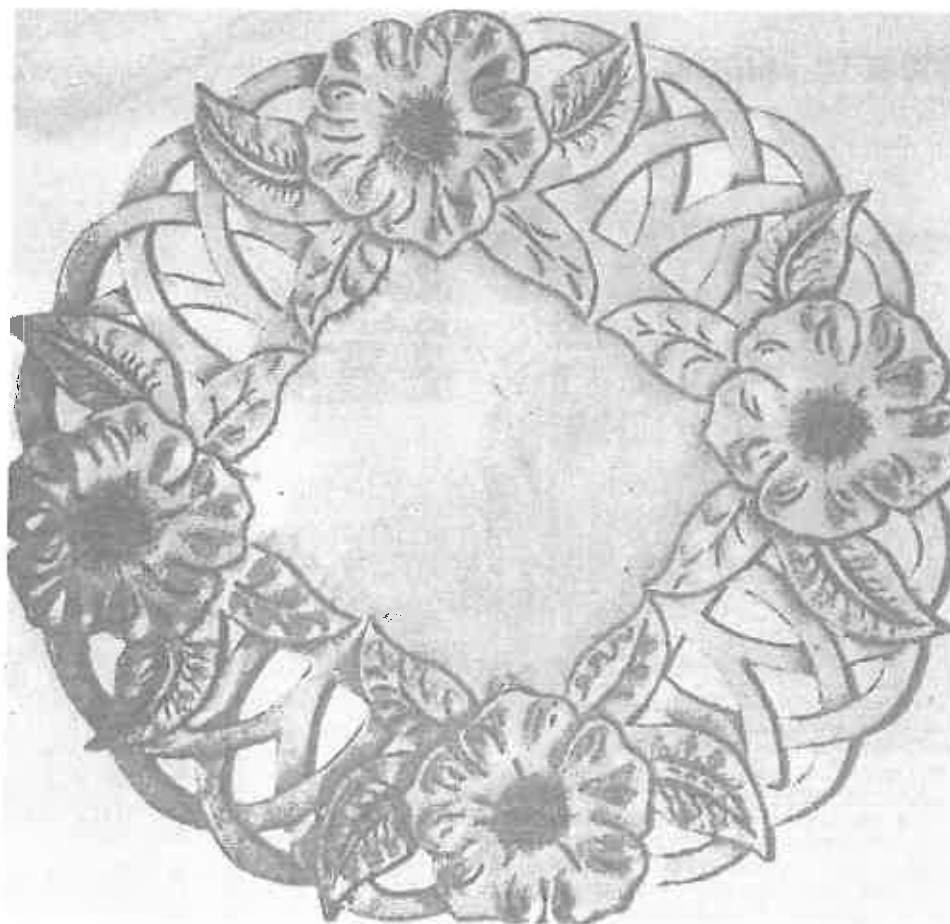
ENLARGED SECTION.... ARROWS INDICATE PROPER DIRECTION OF CUTS.



After filigreeing, apply leather dressing to carved panels. Use a small brush to thoroughly cover edges of filigreed areas. Colored leather — gold

kid, silver, red, green, white, or any one of a large variety now available — is sometimes used between the lining and the filigreed panels.

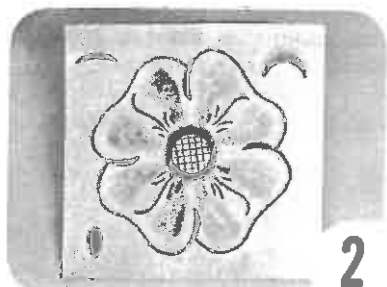
Here is an 8 inch mat of filigreed leather. It can be used to set potted plants on or for many other purposes. When well coated with a leather dressing it is quite waterproof.



Making a Basic Design

There are many patterns available for leather work, but sometimes it is nice to make your own.

Here are some ideas on how to go about making the various parts of a design, and how to put them together.



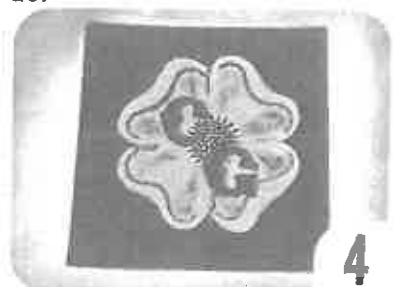
2

This is a very simple flower and was carved with three tools and the swivel knife.



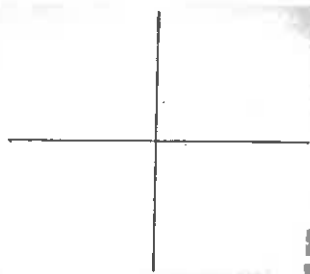
3

Wood paneling is very easy to do.



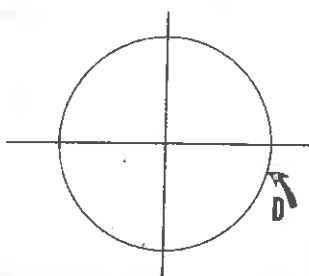
4

This is the same flower with different tools used and initials overlaid.



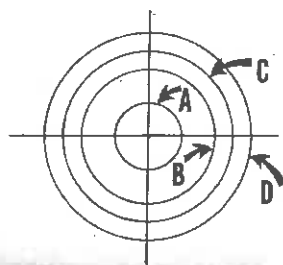
5

To start the flower design draw two crossed lines.



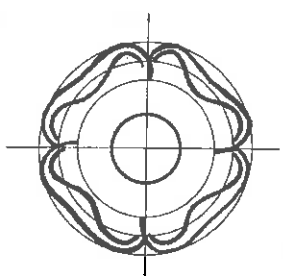
6

With a compass draw a circle the diameter you wish the flower to be. In this case for a billfold the diameter is $2\frac{3}{8}$ " Line "D."



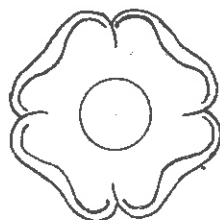
7

Draw the following circles: A. The flower center, B. The start of the petals, C. The intersecting point for the outside of the petals.



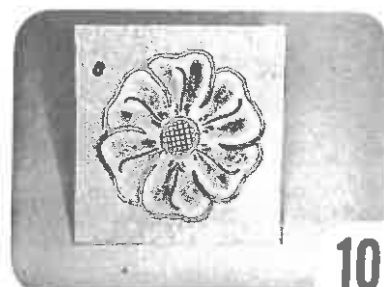
8

Draw in the flower petals and the petal turnbacks.



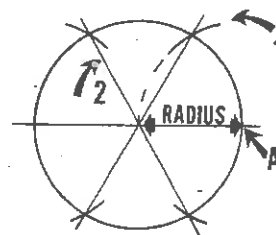
9

Erase all lines except the outlines you wish to use. This is your tracing pattern for the four petal flower.



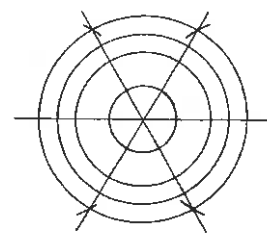
10

You may use as many petals as you wish. This is a six petaled flower and the next three figures show how to develop.



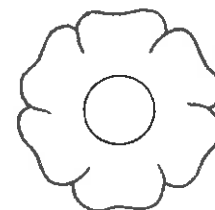
11

Draw the horizontal line. Next draw large circle. Keep the same compass setting and swing #1 arcs from point A. Draw #2 lines.



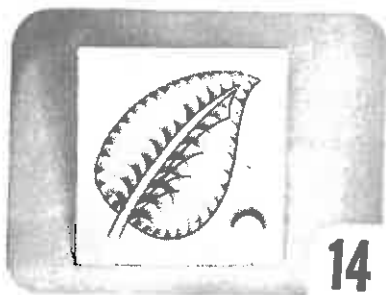
12

Draw in the smaller circles and petals.



13

This is your tracing pattern.



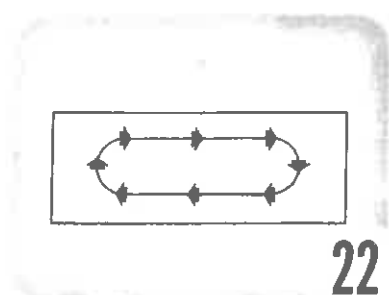
14

Leaves are needed to go with your flowers. This is the leaf we will use.



18

Third, draw in the stem.



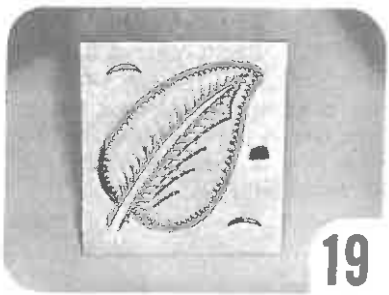
22

This is the oval form. This flow is used a great deal in developing designs for divided pattern billfolds or any small area.



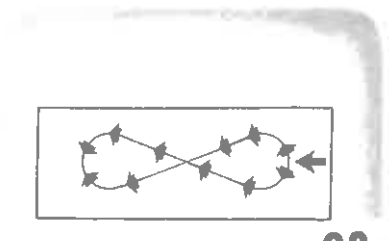
15

Make several leaves like this in different sizes. See Figs. #16, #17 and #18.



19

This is the same leaf as in Fig. 14 carved with different tools.



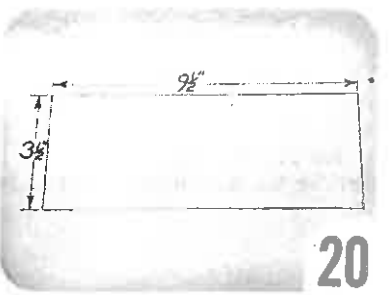
23

Look at some of the patterns now on the market and determine the flow of lines used to develop them. This is the figure eight.



16

First, draw the outside curve.



20

The design we will make will be made to fit a billfold back of the size shown in this photo.



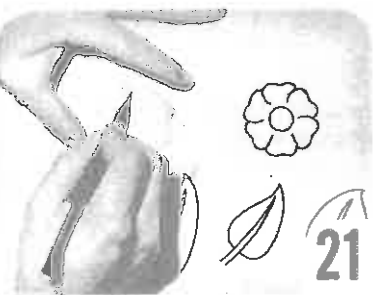
24

The figure "S" flow line has been selected for the development of the billfold design illustrated on this sheet. Sketch in the "S."



17

Second, draw the inside curve.



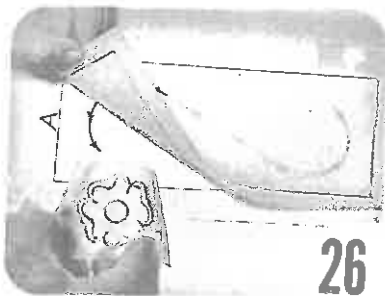
21

Use a small piece of tracing paper and make a tracing of the flower of your choice that will fit the design area.



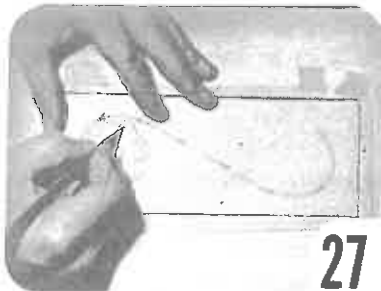
25

Place a piece of tracing paper over the outline of the billfold.



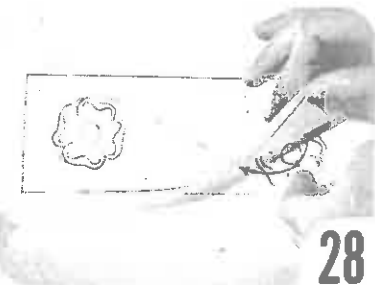
26

Take the traced flower and place it under the tracing paper and on the curve of the "S."



27

Trace in the flower.



28

Move the traced flower to the other end of the "S" and trace again.



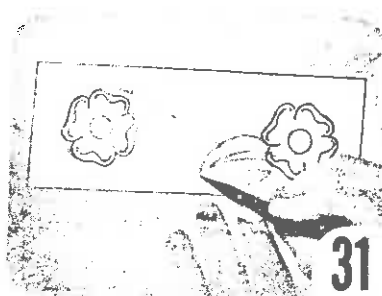
29

The design is now ready for the leaves to be added.



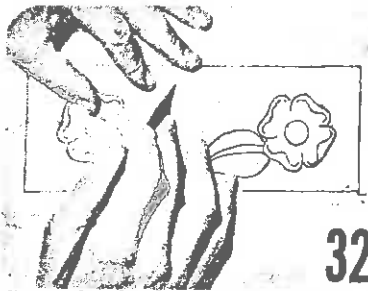
30

Use the leaf you traced on the small piece of tracing paper and place it under the tracing you are making.



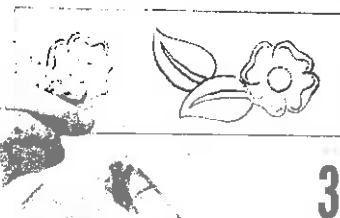
31

Trace in the first leaf and remove the traced leaf from under the design.



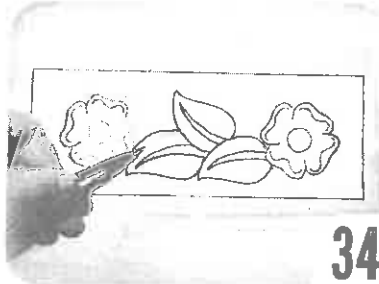
32

Turn the leaf over and place it a little further along the flow of the "S" and trace in the leaf.



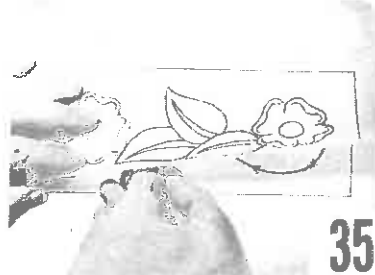
33

Turn the leaf over again and place under the paper ahead of the last leaf drawn and trace in the leaf.



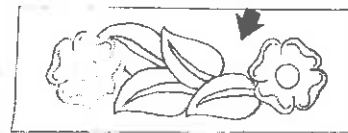
34

Occasionally you may have to change a line to make it fit into the design.



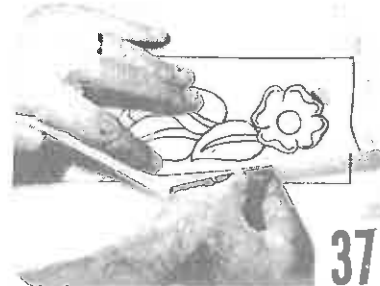
35

Notice this leaf was not turned over after tracing in the last leaf. It fits into the line of the "S."



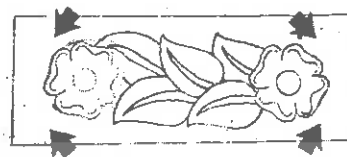
36

The arrow points to a blank area.



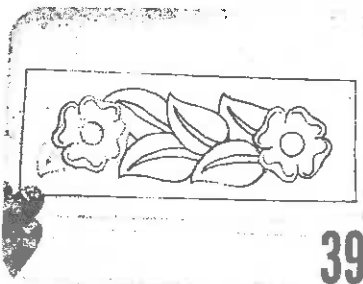
37

Fill in the blank area.



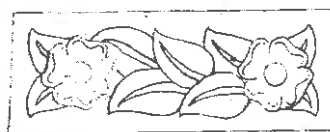
38

The four corners look empty.



39

Fill in the corners with just a portion of the leaf.



40

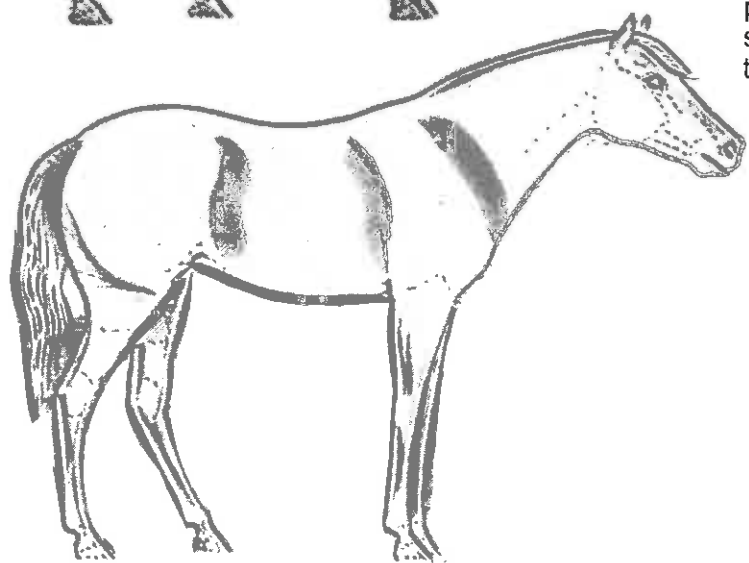
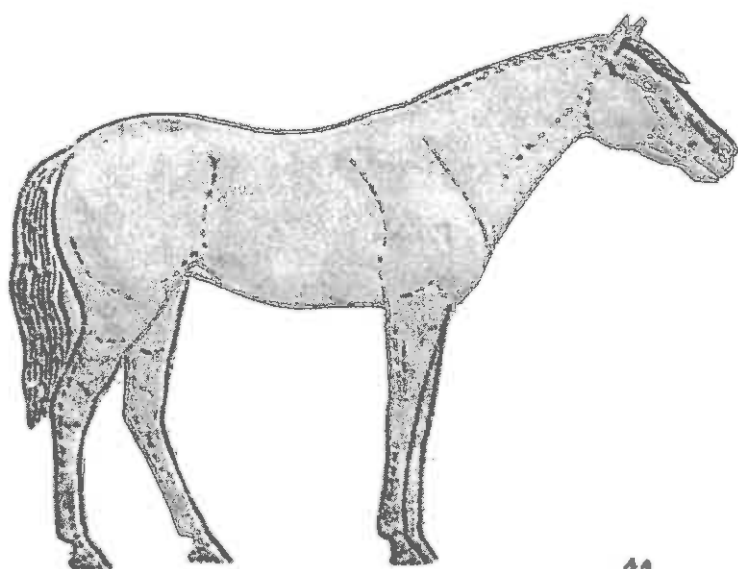
The design has been filled in, but it will need to be refined.

Figure Carving

Figure carving does not differ much from floral carving. The main differences are:

1. Smaller details.
2. Sharper relief & illusions of greater depth.
3. Third dimension.
4. More difficult.

Here is a horse on which to practice.



Trace the figure as carefully as possible. Do not omit any lines. Be sure to trace all dotted lines, too. Dampen both sides of the leather. Transfer the design to the damp leather. Strop your knife

and cut all solid lines of the horse. Do not cut any dotted lines. They are guide lines for beveling contours and muscles.

Bevel the dotted lines lightly, except at point of shoulder and flank. At these points apply more striking pressure. Bevel around legs and under belly. Strike the tool hard when beveling outlines. Use the heel of the tool to slope beveling and matt down away from the figure. This creates an illusion of depth.

Use the #895 beveling tool to bevel the jowl and neck muscles. Tap the tool lightly. Don't worry about tool marks — they will be smoothed out later with your modeling tool. Tap lightly on horse's face with #891. Bevel between tail and hind leg. Bevel under fetlocks at horse's ankles.

Use a pointed beveler between the ears and under the tail to sharpen relief. Use the spoon of the modeler to smooth out rough beveling marks. Round the outline edges of the horse to make him look real. The modeling tool is very important in the figure carving. Use the spoon to round edges of figures; the point for fine details and as a tracing stylus.

Scratch in hairlines on forelock, mane, and tail with point of spoon. Add facial expression and press in nostril and corners of eye with point of spoon. Shape the eye round. Do not smash down the eyeball.

Figure Carving Rule:
Always cut the foremost objects first.

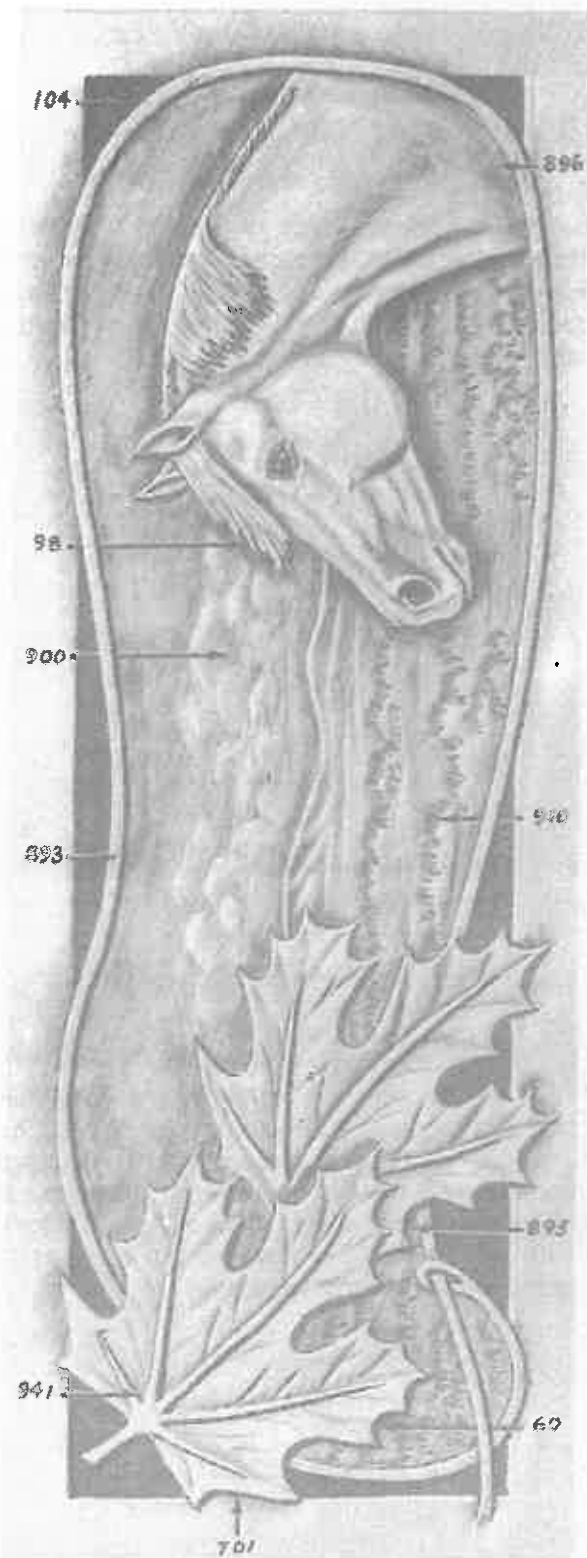


RIGHT

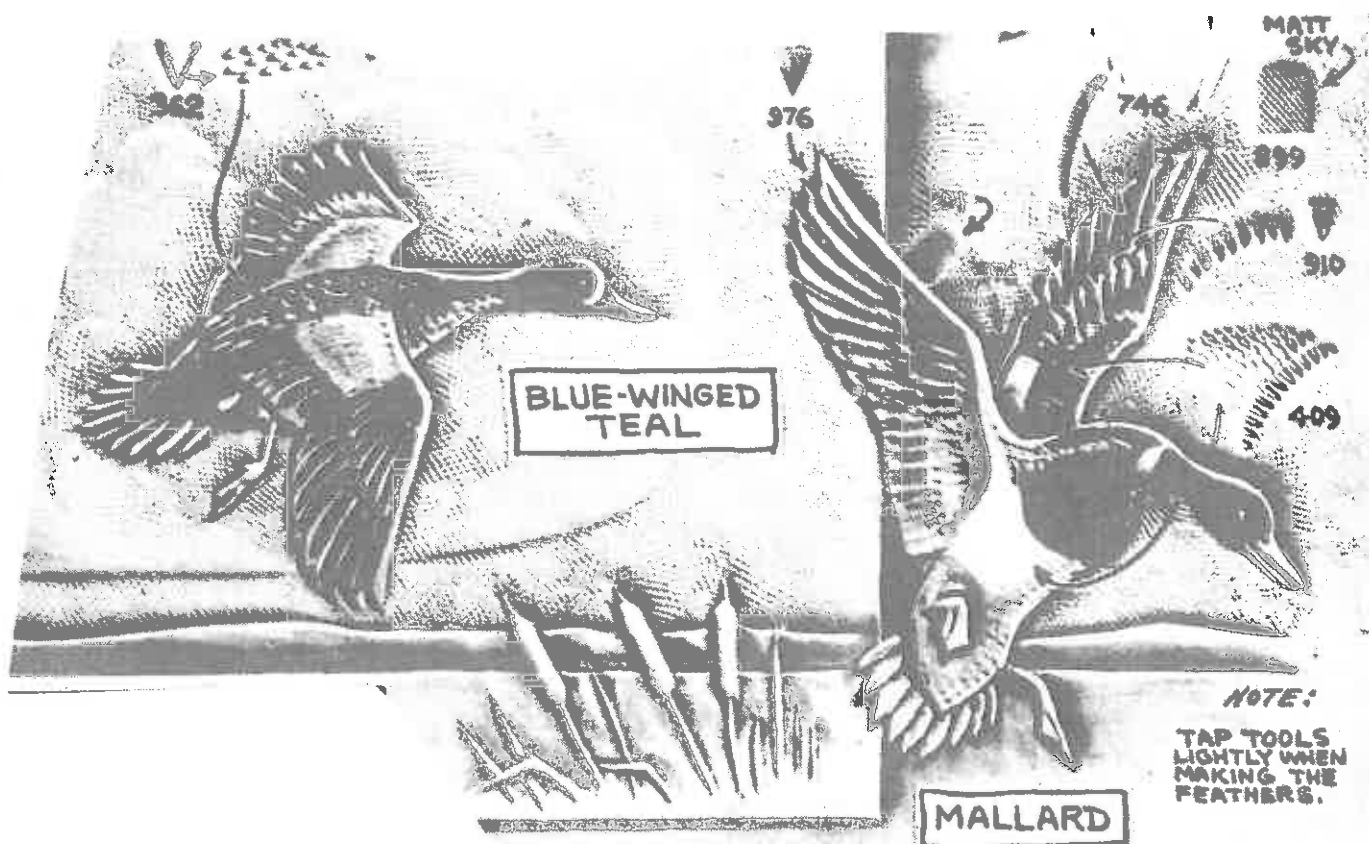
Only a casual glance is needed to notice the difference between right and wrong carving. However, let's make some specific comparisons to demonstrate what is wrong with wrong and right with the right.

WRONG

In the "wrong" carving of the horse, notice that the legs are much too thin for correct proportion. This can be caused by careless tracing, or more commonly, it results from the swivel knife cut being slightly on the inside of the tracing line. Compare with the "right" figure where the cut was made along the outside of the tracing line.



Horse Head and Maple Leaf Design for Billfold — By Christine Stanley



Dyeing Leather

Often dye can be used to good advantage to improve the appearance of your leather article. In most cases, however, it will decrease the durability of the article as dyes tend to fade with wear.

Kinds of Dyes and Stains

You may want to color your own article or at least part of the design you have carved. There are many different dyes and stains available with which to work.

Water Dyes. Most commonly used dyes for leather are aniline dyes. They come as a powder and are mixed with hot water to make a solution. Directions are on the packages of dye purchased from supply houses. The article may be completely immersed to color it or the dye may be applied with a brush.

Oil Stains. These are used to produce soft effects and make the article more durable. Thin them with turpentine. Apply oil stains and wipe off immediately.

Spirit Dyes. These are powder dyes that are soluble in alcohol. They are inexpensive and easy to use.

Higgins' Waterproof Drawing Inks. These inks are excellent for dyeing edges of leather and small designs. They are not suited for coloring large projects because they are expensive.

Acids, Salts, and Oxides. The following acids, salts, and oxides are soluble in water. A few grains or crystals dissolved in a half cup of distilled water will make a solution sufficiently strong. Always try the solution first on a piece of scrap leather. If the solution is too strong, the leather will darken, crack, and deteriorate rapidly. Add more distilled water to solutions which produce such effects. The best way to get dark shades is to apply a weak solution several times. Remember, it is always best to experiment on scrap leather before applying the following solutions to your work:

1. Ferrous hydroxide — various shades of brown.
2. Chromium trioxide — various shades of brown.
3. Ferrous sulphate — shades from pale gray to deep blue gray.
4. Ferrous ammonium sulphate — deep grays.
5. Picric acid — various shades of yellow. Applied over ferrous sulphate, it will produce shades of green.

HOW TO APPLY LEATHER DYES

Omega dye is a deep penetrating, permanent-based oil and solvent dye which produces deep, rich colors and is best for an overall color change. Use for all

surfaces which will be flexed. Apply with dauber for large areas, and with brush for tight, limited areas.

1 OMEGA DYE

Practice on scrap leather; twist brush clockwise to point the bristles.

NO. 3 SABLE BRUSH
SCRAP LEATHER



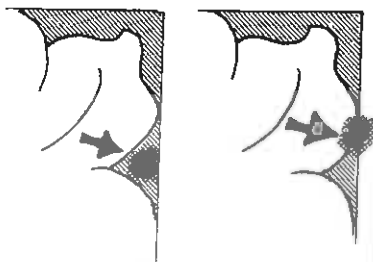
2

Begin dyeing in the open areas, touching brush first to scrap leather to remove excess dye. Too much dye will "bleed" over the edges of the design.



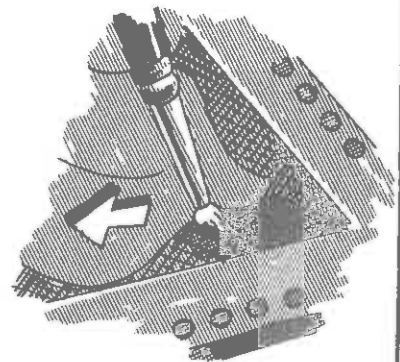
3

Touch dye to center of area to avoid bleeding. If you start in a small area, dye will crawl over the edge of the design.



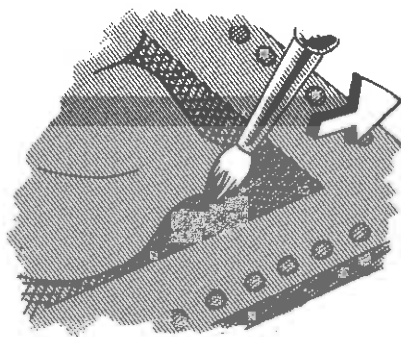
4

Begin dyeing in widest areas and work toward the fine points. Use caution near edges and border lines.



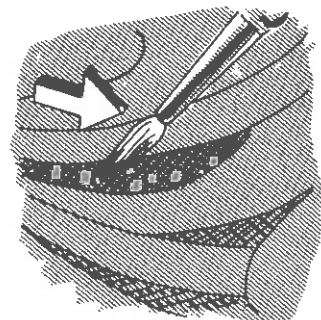
5

When most of dye is exhausted, point brush by twisting clockwise on scrap leather.



6

Use short, pulling strokes to cover the area. Turn leather as often as necessary to facilitate dyeing in difficult areas.



COVA DYE

Cova Dye is a plating dye that requires a smooth, clean surface for proper bonding ... it produces bright, lustrous colors. If both sides of the leather are to be dyed, begin by dyeing the flesh side and, by the time

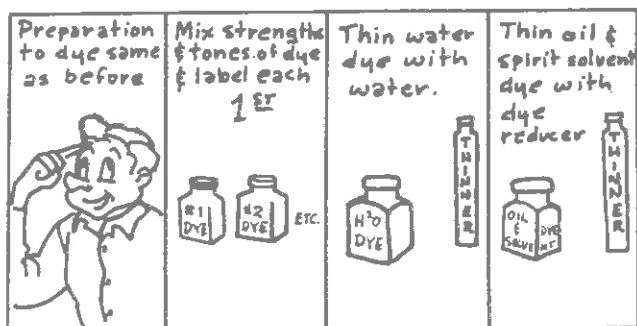
you complete the flesh side, the dye will be dry enough to dye the grain sides. Brush dye on evenly. Allow to dry. Apply a second coat of dye to produce an even, solid colored finish.

If you want to dye the entire article, use the following methods:

If using a swab applicator, apply dye to leather in circular motions. If using a large squirrel-hair brush tilt leather so that left side is on a slight angle and apply dye from left to right in straight, even strokes. Begin each subsequent stroke from the left and partially overlap the preceding stroke. Apply dye freely until the article is completely covered. If you want a deeper tone, allow the first coat to set for about ten minutes before applying the second coat.

Application

Apply the lightest tones of the lightest colors first and progress to the darkest tone of the same color. For example: a brown horse on a hot, sandy desert. Begin with the yellow or light tan tones for the desert, graduating to the darker tones of tan, reflecting highlights and shading. Then begin with the lightest tones of brown on the horse, graduating to the darker tones. Work your brush from left to right, beginning your stroke wherever you wish the darkest shade of that particular tone. This is especially true with the oil and solvent dyes because where the brush initially contacts the leather, the heaviest deposit of dye will be left. With the water soluble dye, the colors also should be applied from light to dark; however, these dyes may be blended together by modeling them with your index finger as long as the dye is wet enough. Many beautiful color arrangements can be had with this latter method. A little experimentation here can be a lot of fun.



Suggestions as to Selection of Colors

Browns, tans, and russet are leather colors. They can be used very effectively in their various tones for this type of dyeing. Since leather assumes no other color from its mellowing, these colors will be greatly enhanced as the leather ages. If you wish to use other colors, select colors with a common base (water or oil).

Dyes also are available in colors such as blue, yellow, green, white, red, etc. Sometimes it is interesting to use a color to make matching accessories. Use color sparingly though as the natural beauty of the leather is best for most articles.

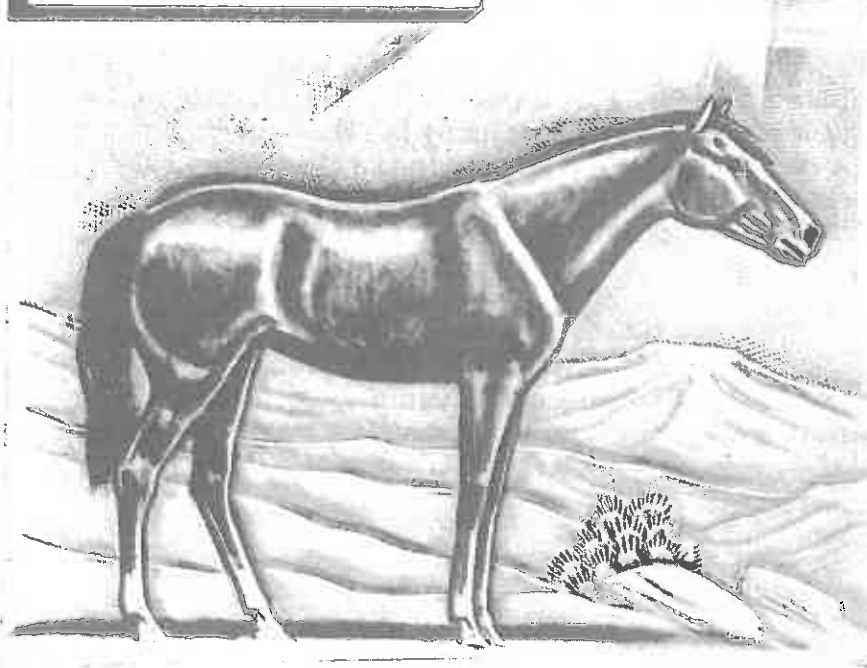
Added Tips on Leather Dyeing

1. When dyeing, turn leather whenever necessary.
2. Feel relaxed.
3. Being relaxed gives you an attitude of confidence.
4. Tensions and anxieties inevitably result in mishaps.
5. Don't hurry. Be deliberate. Remember, you already have a great deal of time and money in your carving.

A little more patience will pay great dividends.

NOTE HOW LIGHTS AND SHADOWS CREATE ROUNDNESS AND DEPTH ON THE HORSE BELOW.

LIGHT SOURCE



REMEMBER.....
DO NOT TOUCH HIGHLIGHTS WITH DYE.

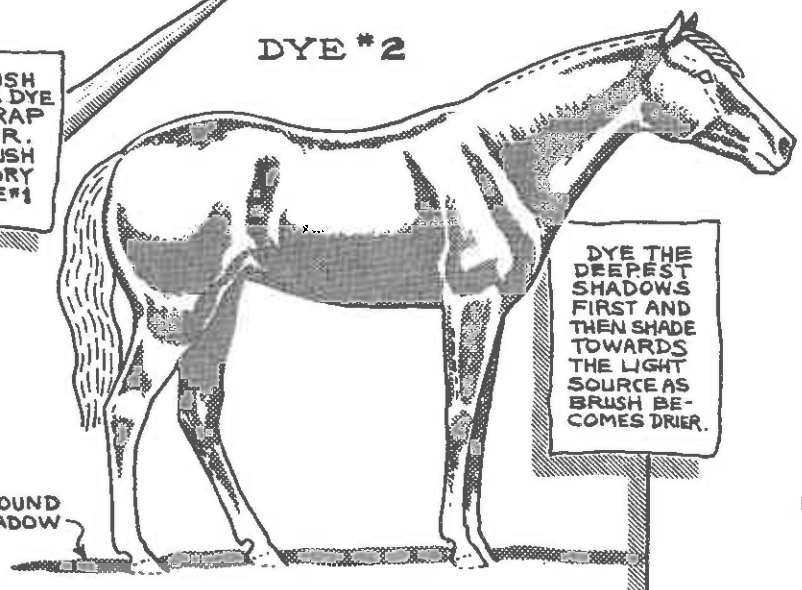
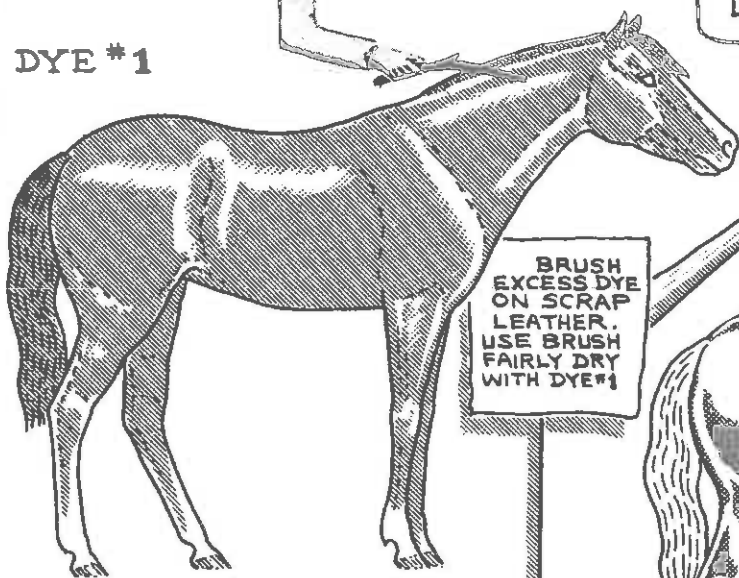
DYE #1

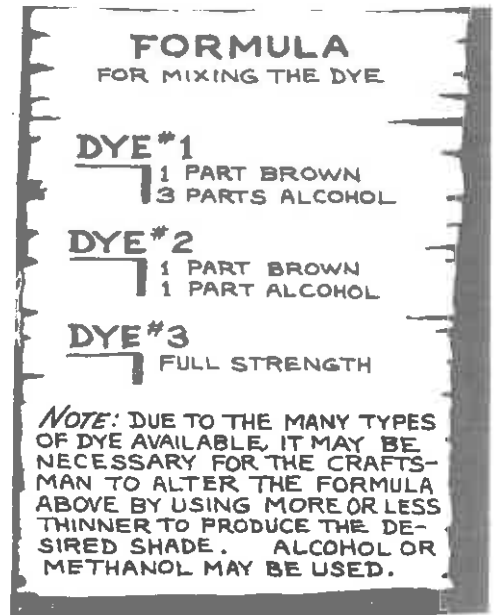
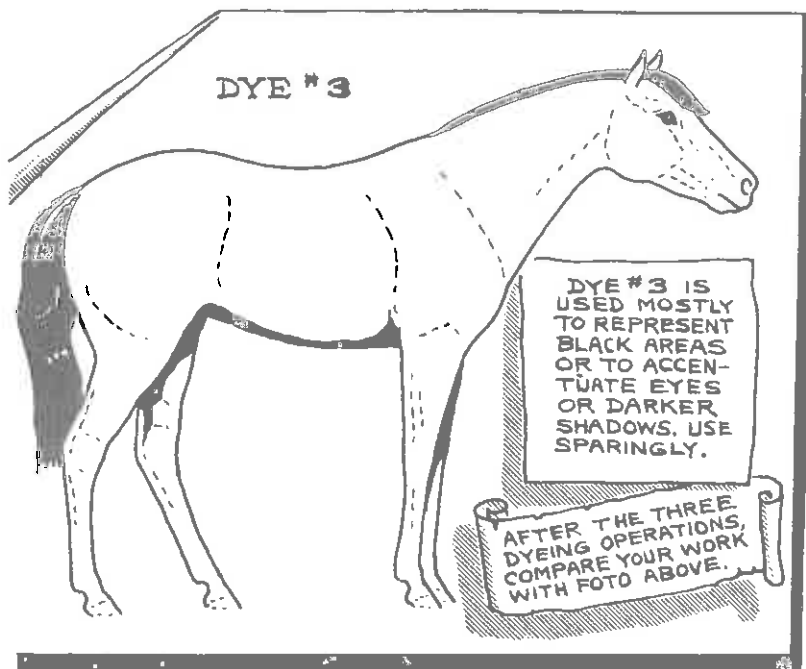
DYE #2

BRUSH EXCESS DYE ON SCRAP LEATHER. USE BRUSH FAIRLY DRY WITH DYE #1

DYE THE DEEPEST SHADOWS FIRST AND THEN SHADE TOWARDS THE LIGHT SOURCE AS BRUSH BECOMES DRIER.

GROUND SHADOW





Dyeing "Nature-Tand" Leather

The "Nature-Tand" dyeing technique allows you to apply dye to the surface of the leather to contrast with the stamped and natural impressions in the leather. With this technique the dye will not enter the stamped impressions. The dyes used are a spirit solvent.

1. Wrap a length of cloth around a sponge or wooden block several times. Apply dye to the cloth and blot on a paper towel until cloth has enough dye remaining to color only the surface of the leather. If too much dye remains it may run into the impressions. For shading an edge or small area, use a small piece of sponge without a cloth.
2. With the cloth, apply dye to surface of leather, rubbing briskly so a burnished effect is achieved. Apply more dye to cloth as needed, blotting before applying to leather.
3. Dye all edges. For a distinctive edge, dye the edges and a border area along them with dark brown or black.
3. For a more finished look, the back side of the "Nature-Tand" leather may be dyed and finished with a wax base leather finish. Using a wool dauber, apply dye with a circular motion.
4. After dye has been applied, wait until leather dries before applying a finish. With a damp sponge or cloth apply a light coat of finish to surface of leather; then buff with a piece of wool or soft cloth.

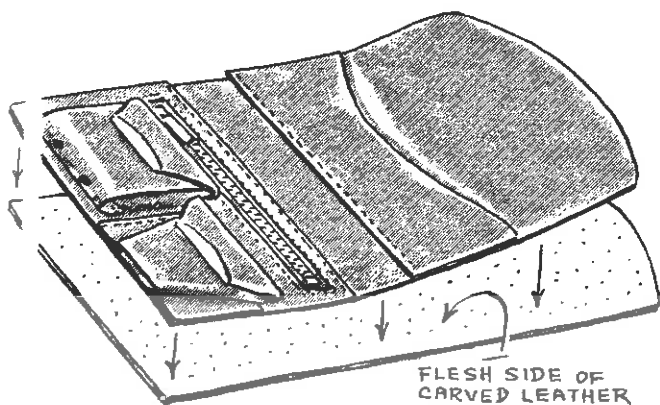
"Junior Miss"

CLUTCH PURSE



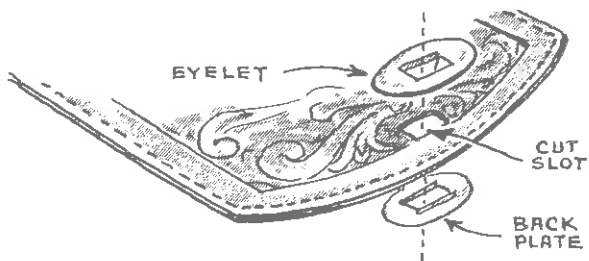
ASSEMBLY INSTRUCTIONS

- 1 After all carving and stamping install bag clasp anvil before cementing bag to lining. Complete assembly of all interior parts.



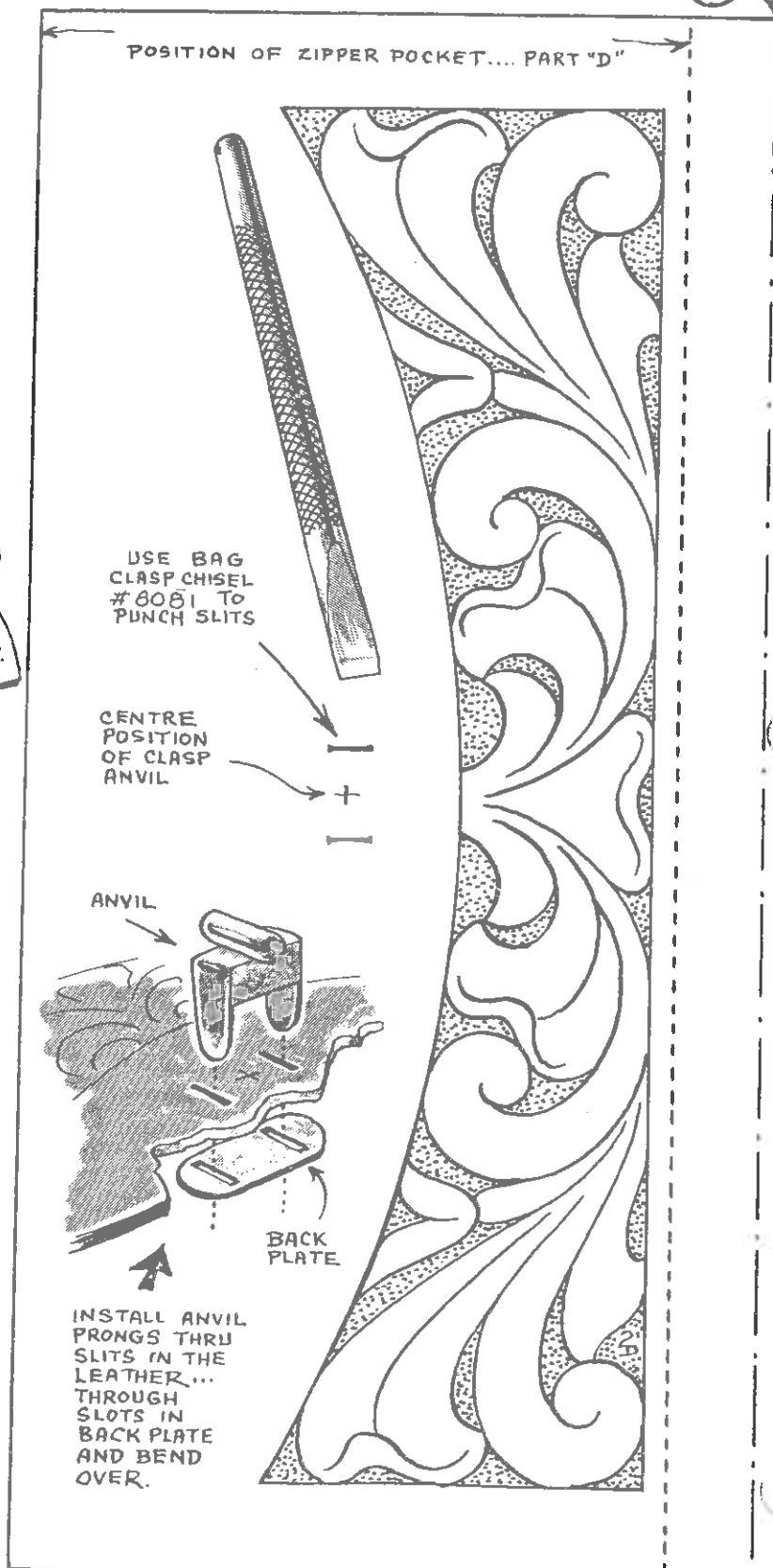
- 2 Cement bag lining assembly to carved leather. Trim off any excess lining leather.

- 3 Punch lacing slits or lacing holes, as suggested on adjoining page. (see pattern). CAUTION: Use care when punching holes around pocket assembly. Use a block of wood under edge, or lay work on edge of bench if punching the slits... To avoid punching bottom of wing insert cover

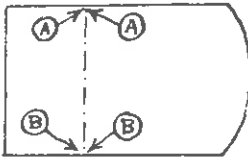


- 4 Install bag clasp eyelet.

- 5 Lacing completely around purse with Double Loop stitch. Begin lacing at end of purse (opposite flap).



JOIN (A) TO (A)
AND (B) TO (B)
TO COMPLETE
PATTERN.

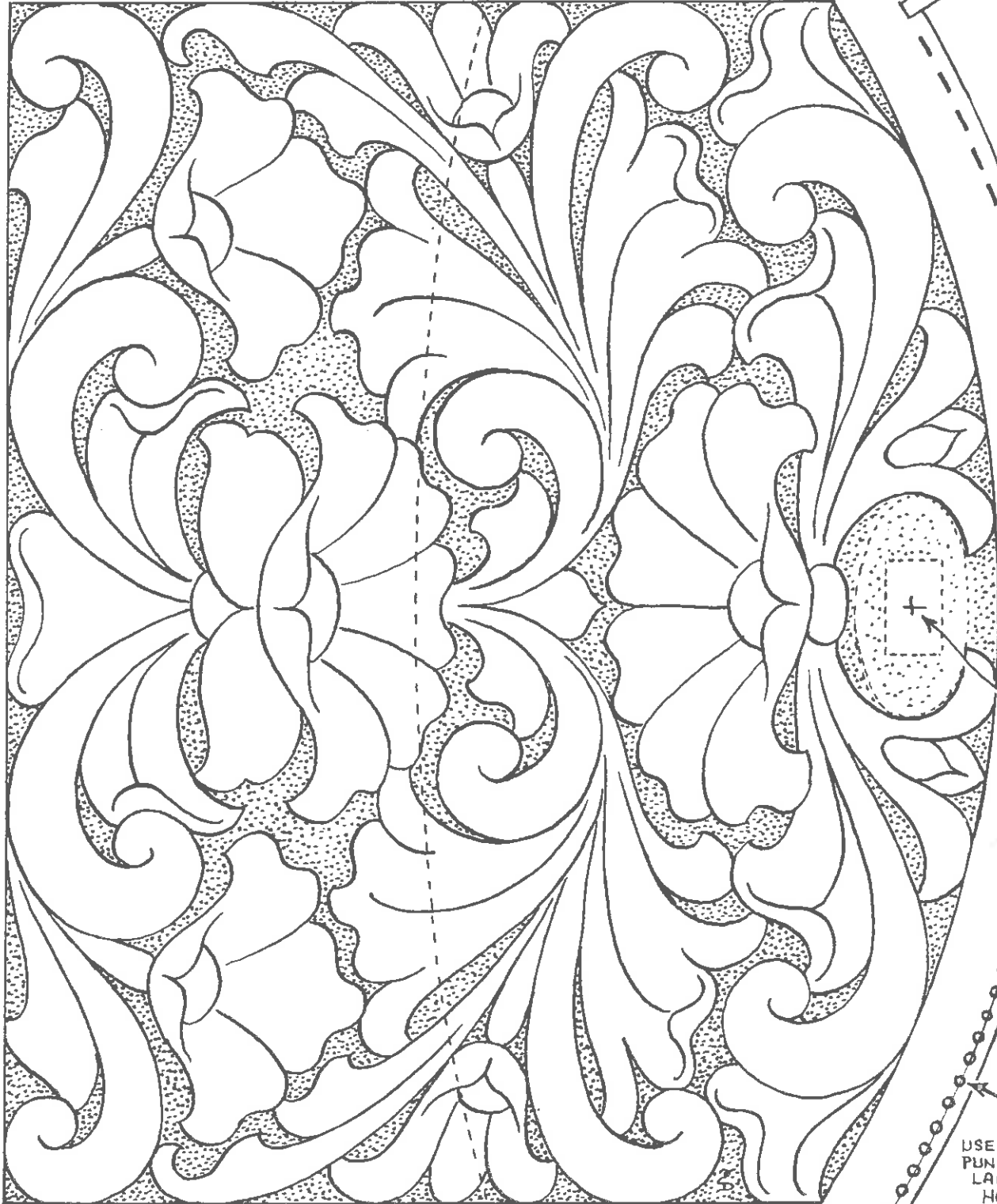


SCRIBE GUIDE
LINE FOR THE
LACING HOLES
OR SLITS.

USE 3-PRONG
THONGING CHISEL
FOR LACING
SLITS

POSITION OF UTILITY POCKET
PART "E"

$\frac{1}{8}$ "



CENTRE POSITION OF
BAG CLASP EYELET

USE No. 1
PUNCH FOR
LACING
HOLES

USE A No. 6 SPACING WHEEL TO MARK FOR LACING HOLES

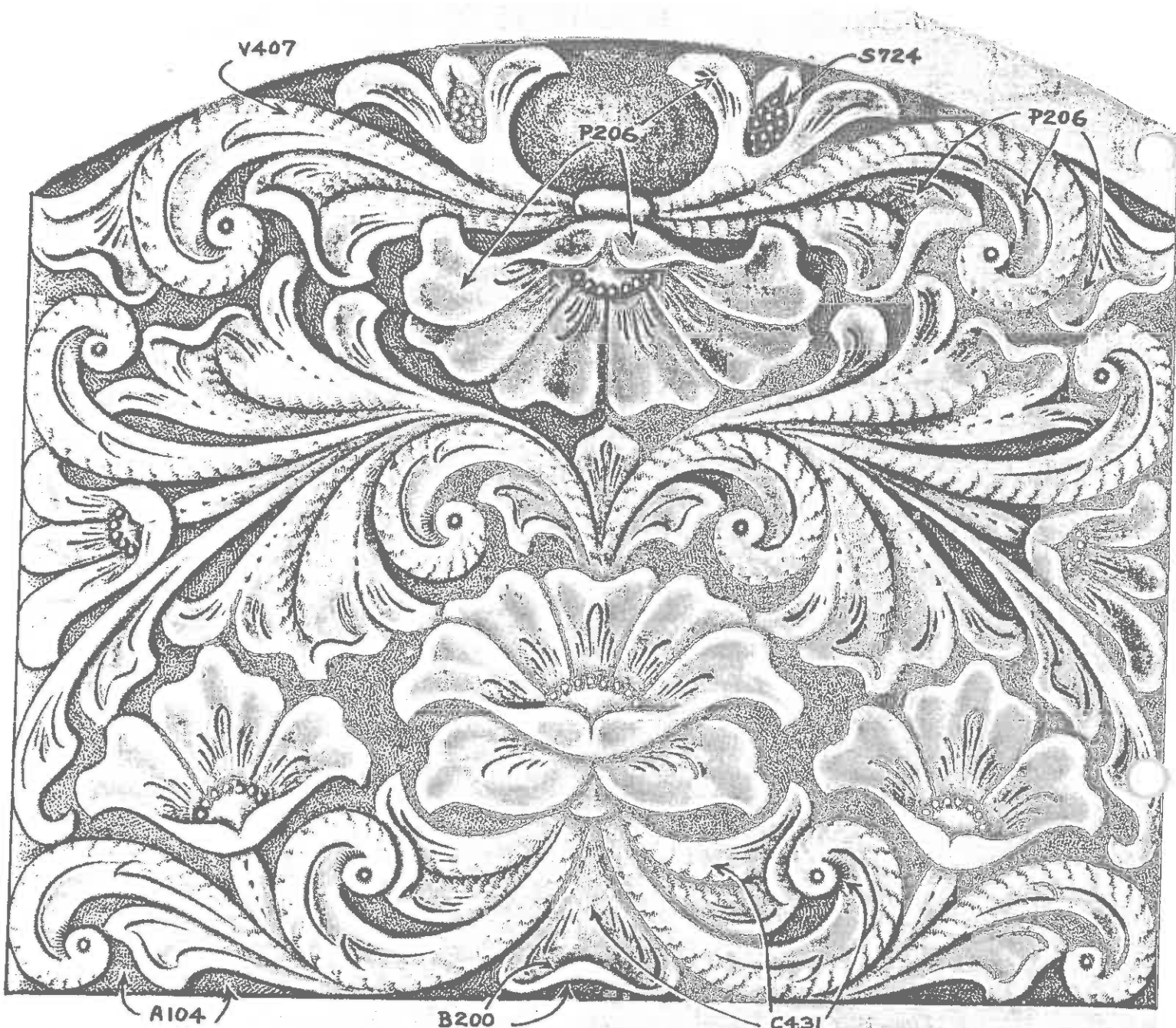
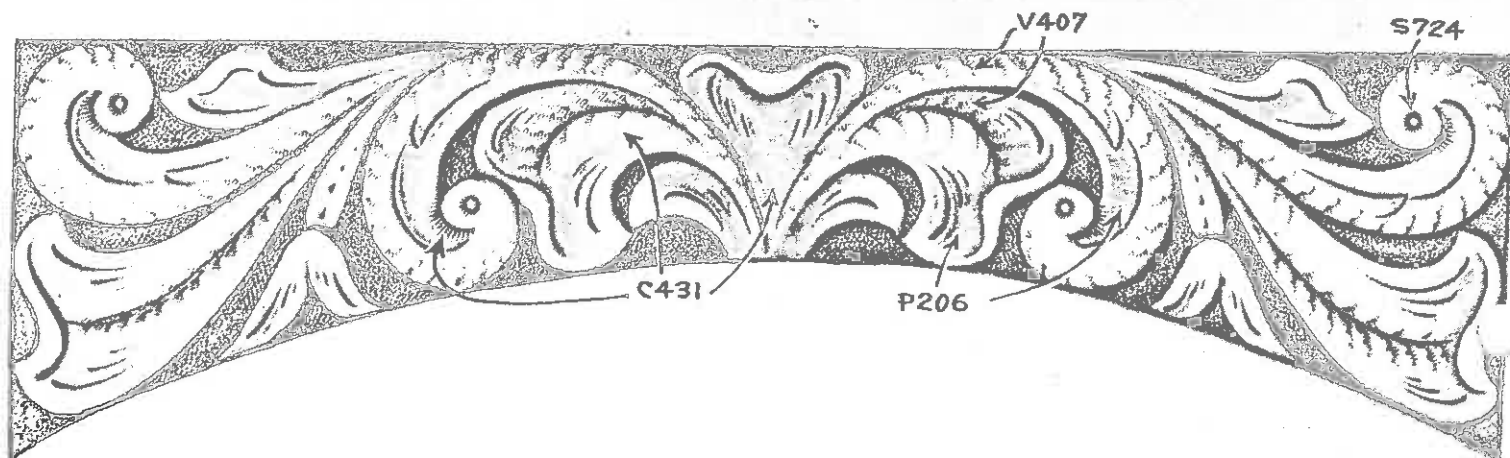
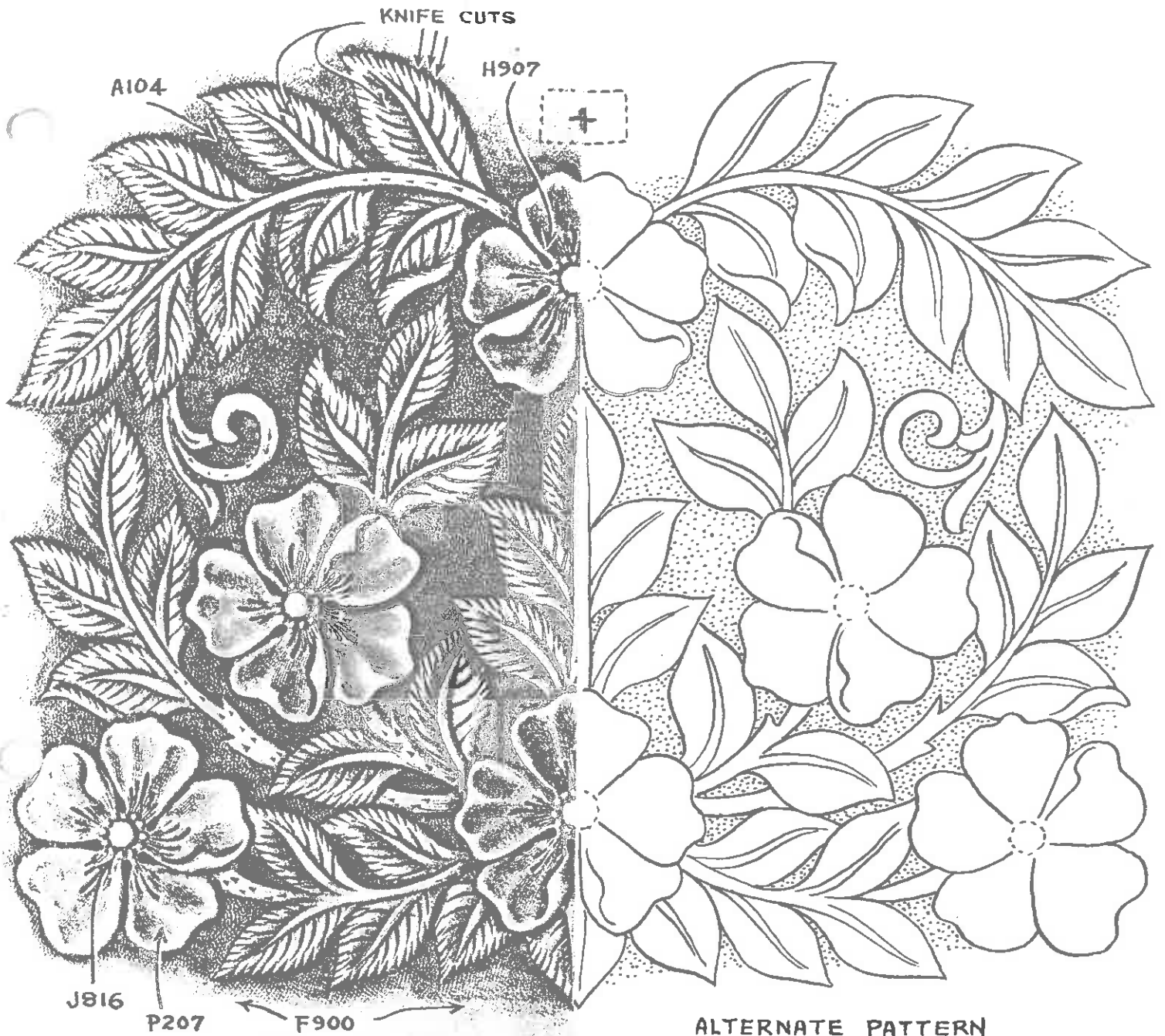
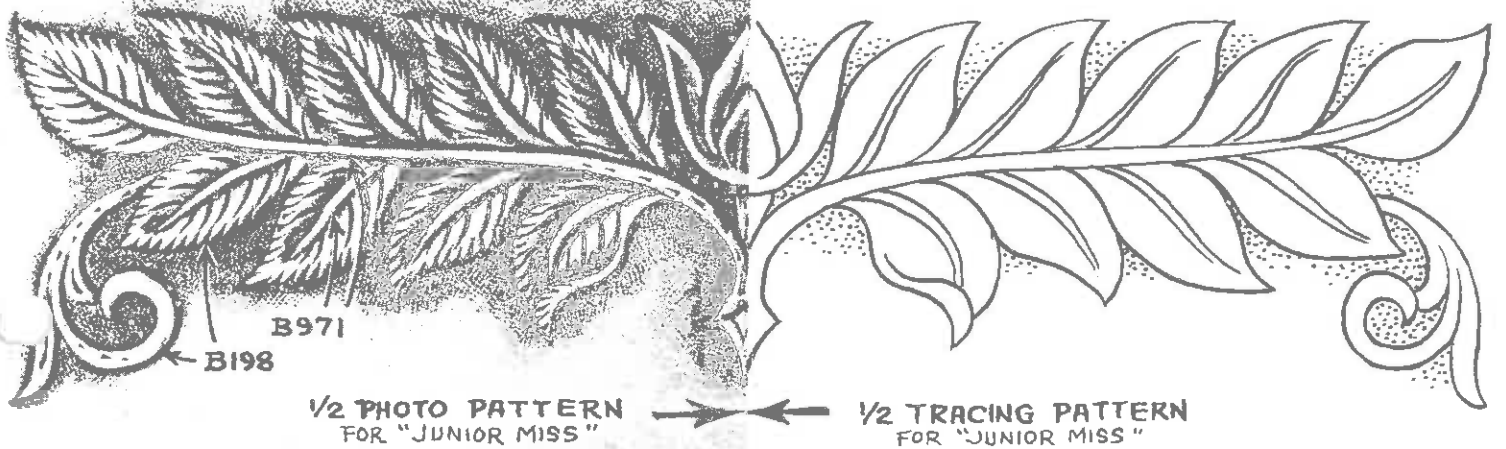


PHOTO PATTERN FOR "JUNIOR MISS"





ALTERNATE PATTERN
FOR "JUNIOR MISS" BAG

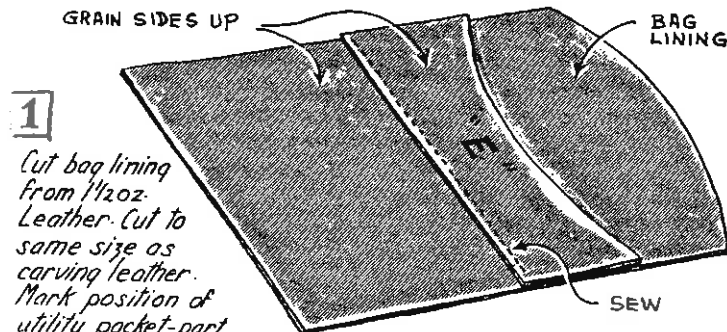
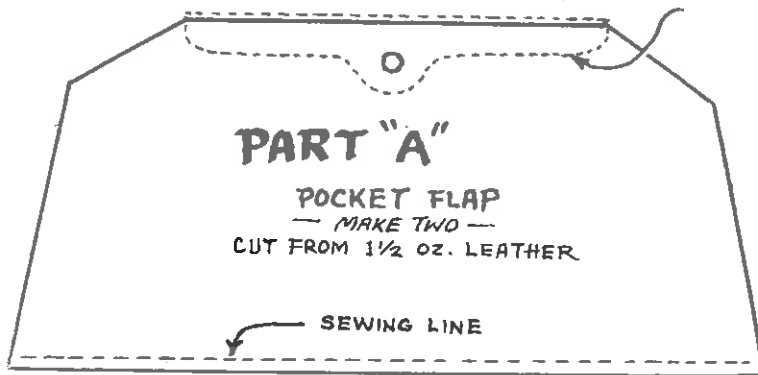


1/2 PHOTO PATTERN
FOR "JUNIOR MISS"

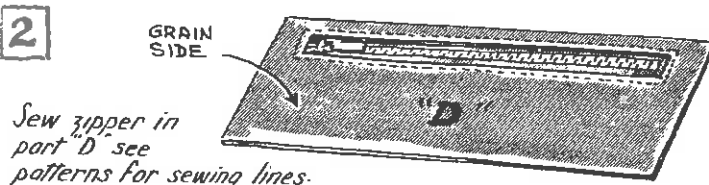
1/2 TRACING PATTERN
FOR "JUNIOR MISS"

"JUNIOR MISS" CUTTING PATTERNS AND ASSEMBLY INSTRUCTIONS FOR MAKING YOUR OWN INTERIOR PARTS

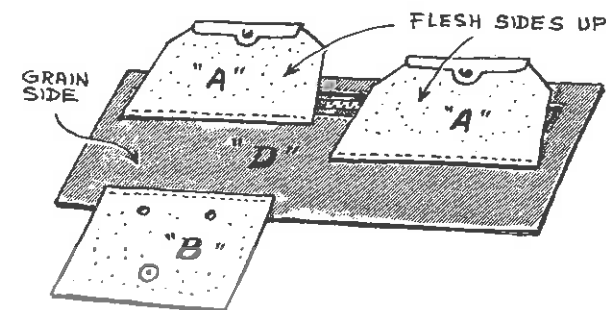
POSITION OF BAR SNAP



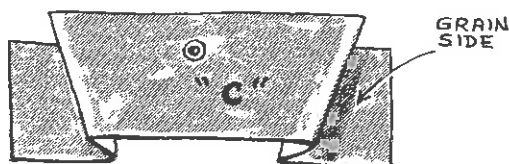
1 Cut bag lining from 1/2 oz. Leather. Cut to same size as carving leather. Mark position of utility pocket-part E - (see pattern) and sew part E to bag lining at bottom edge only.



2 Sew zipper in part D see patterns for sewing lines.

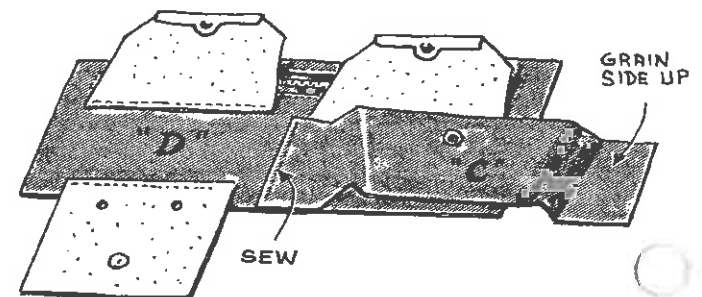
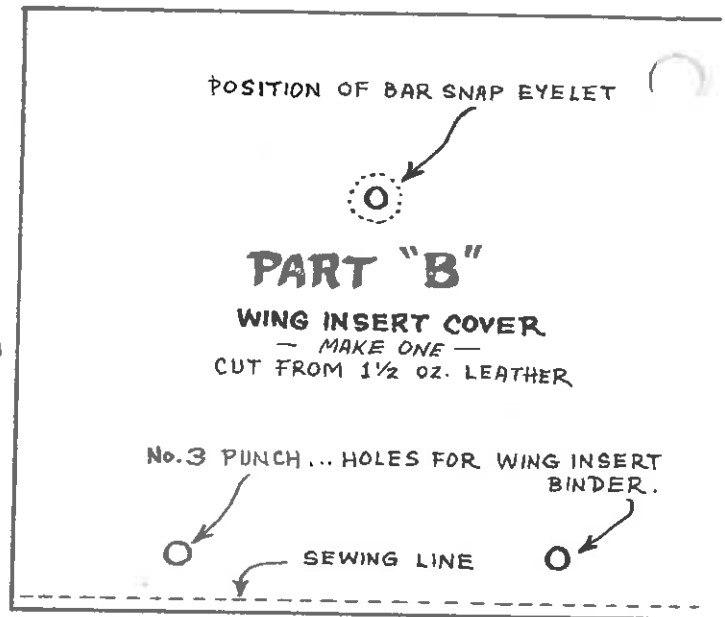


3 Sew part A and part B to part D at edges indicated. See patterns for proper locations. Be sure to install all snap parts before assembly.

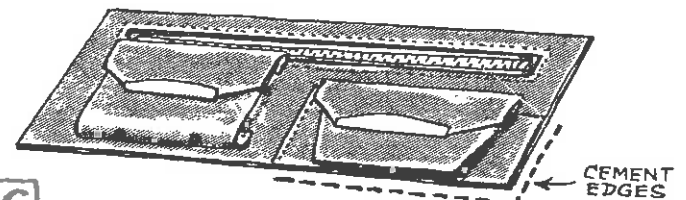


4 Moisten fold lines of part C and fold as shown. Press flat with Bone Folder, or tap with hammer.

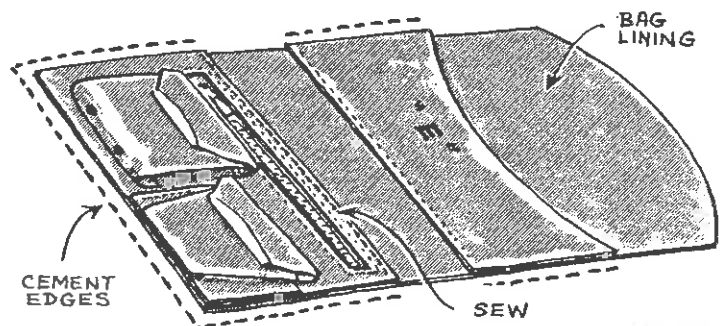
POSITION OF BAR SNAP EYELET



5 Place part C in position, on part D, and sew the left side only, as shown.



6 Cement edges of expansion pocket to part D (indicated by heavy broken line). Snap Flap in place.



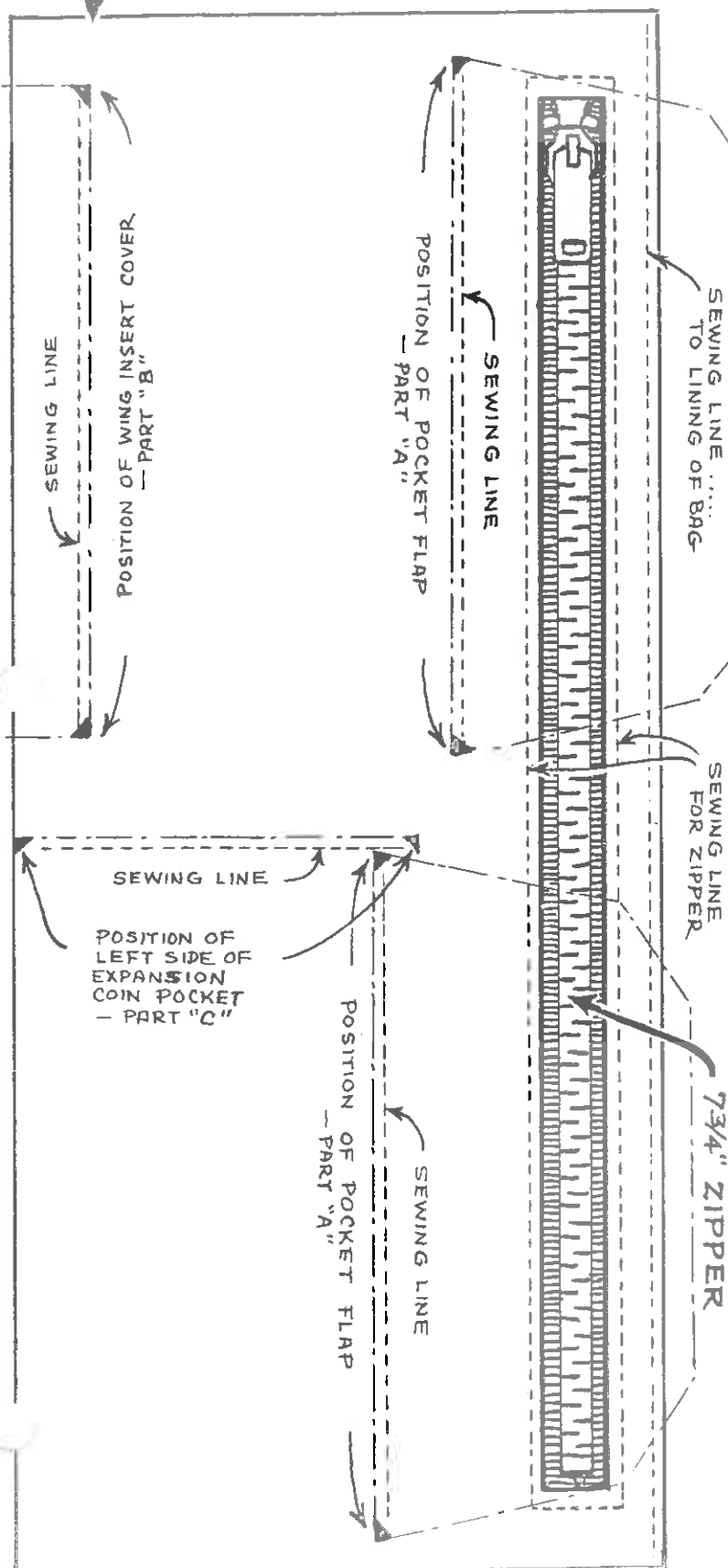
7 Place assembled unit (from step 6) in position on bag lining, and sew to bag lining. Cement all edges (indicated by heavy broken line) to bag lining. The Junior Miss interior is ready to assemble to carved body of bag.

"JUNIOR MISS" CUTTING PATTERNS - CONTINUED FROM PREVIOUS PAGE

(FOR MAKING AND ASSEMBLING YOUR OWN INTERIOR PARTS)

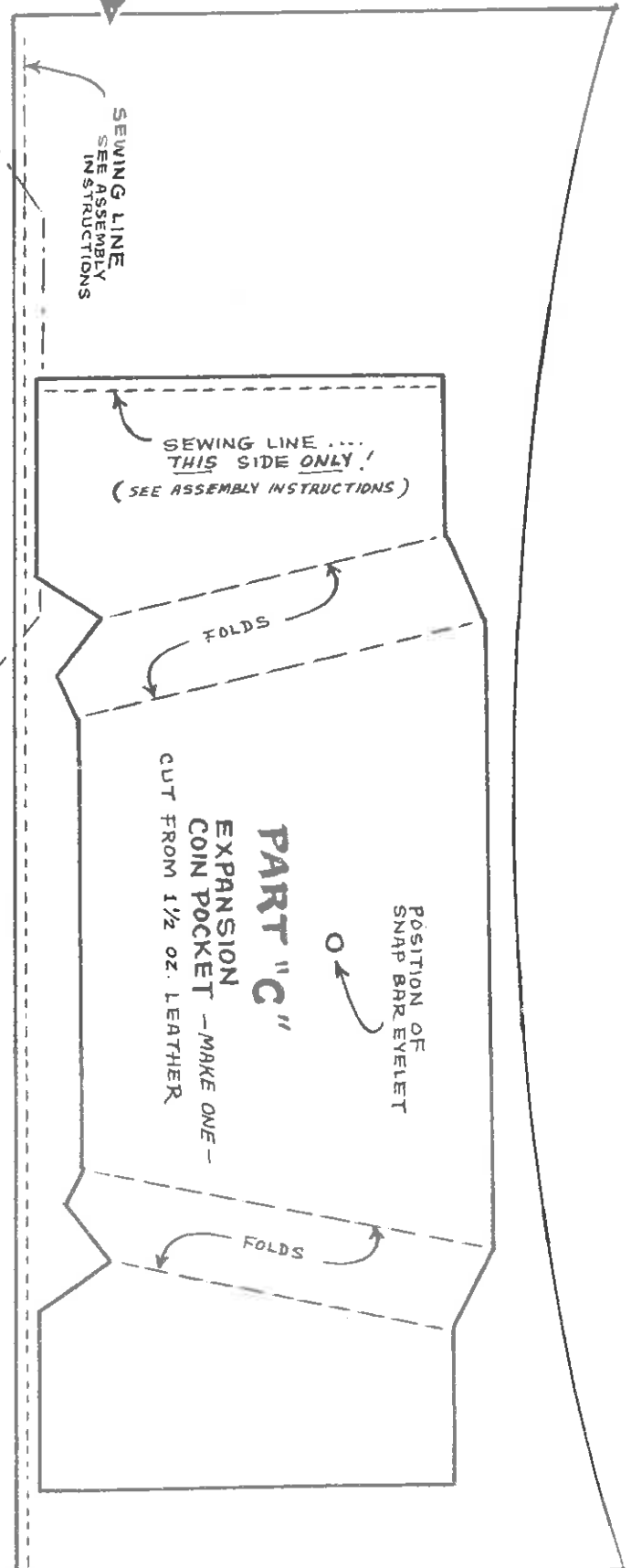
PART "D" ZIPPER POCKET

CUT FROM 1 1/2 OZ. LEATHER



PART "E" UTILITY POCKET

CUT FROM 1 1/2 OZ. LEATHER

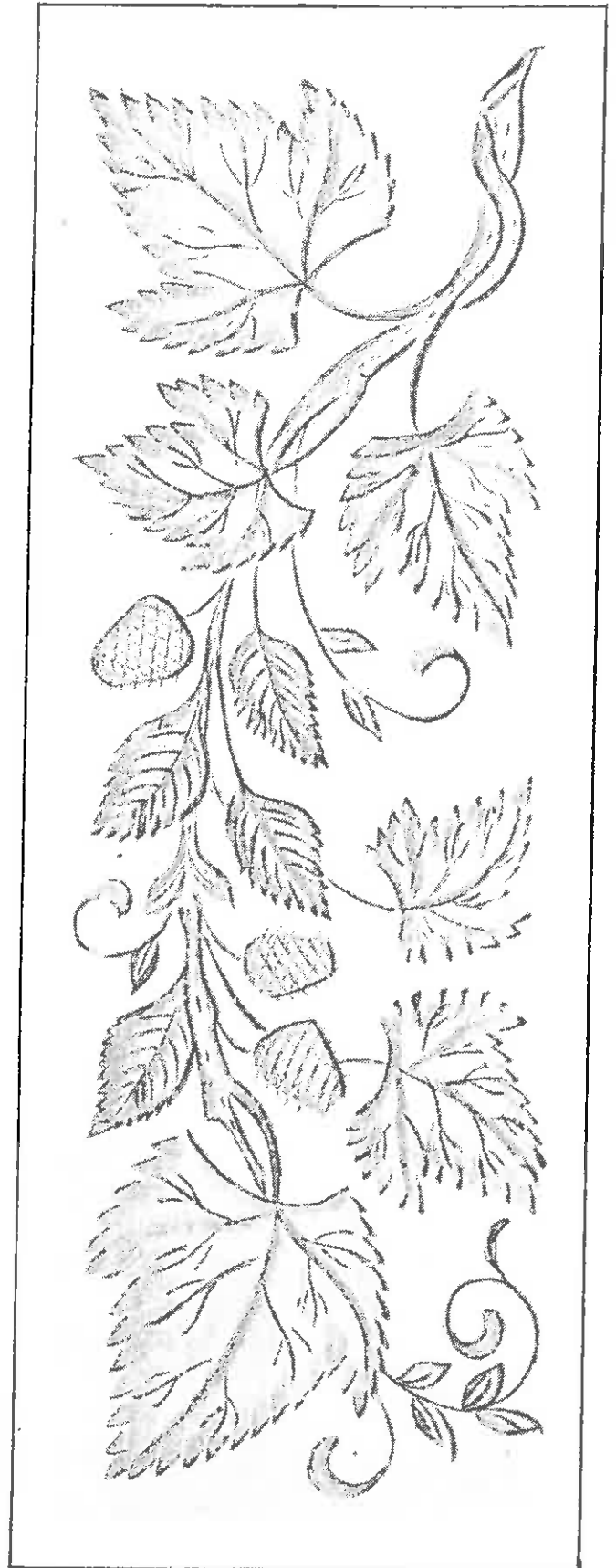
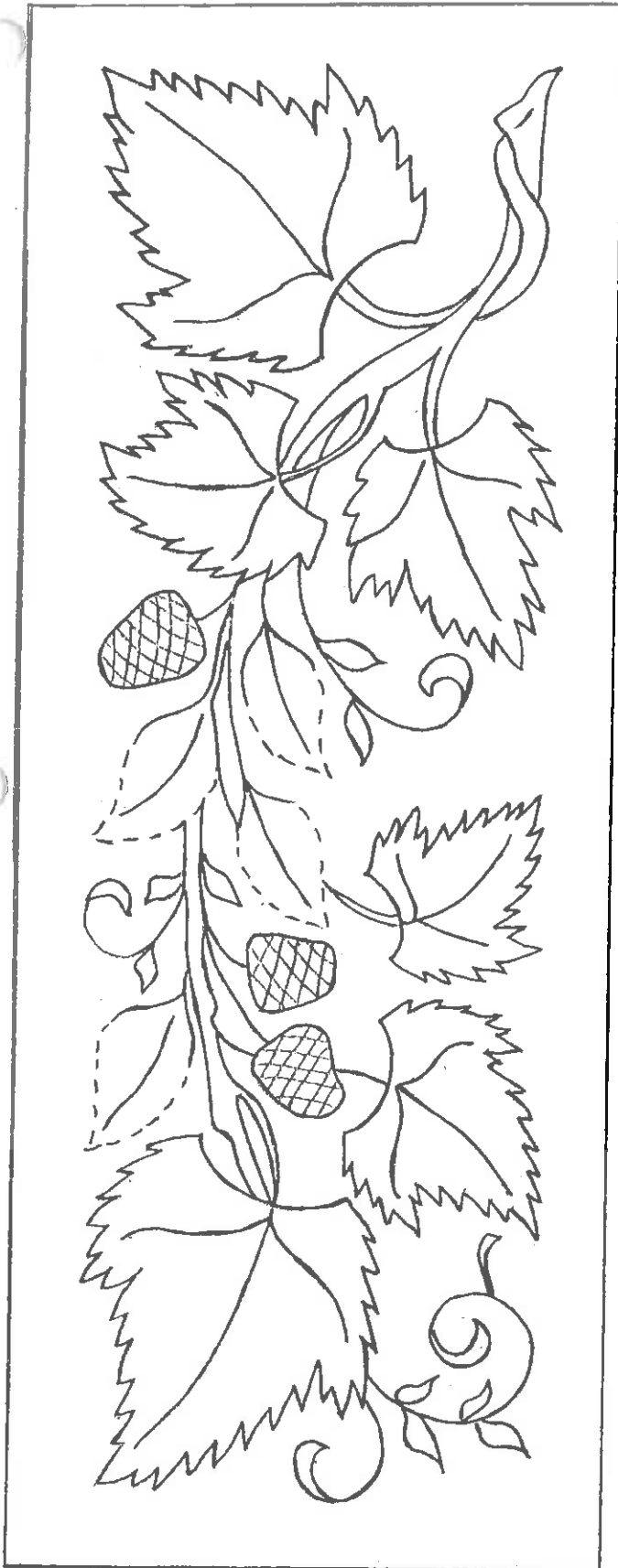


Wastebasket

1. Select a metal wastebasket any size, shape, or form to suit your taste.
2. Measure the circumference and height of the wastebasket and get a piece of 3½ oz. calf about 1 inch wider than basket height and 1 inch longer than basket circumference.
3. Carve the repeating pattern and monogram as shown, or any other pattern you desire.
4. Trim the leather to the correct height of the wastebasket.
5. Skive the grain side of one end of the leather.
6. Use 1 inch skiver to trim the top edge of the wastebasket and glue it in place with permanent glue.
7. Using permanent glue, glue the skived end to the wastebasket. Wrap the leather around the wastebasket and mark the size on the top and bottom where the leather laps over the skived end. Unwrap the leather and trim it to size. Skive on the flesh side for a smooth lap joint. Glue all around with permanent glue.
8. Burnish the bottom edge.
9. Apply the dressing.



Billfold (Inverted Design)



Suede Blouse

Using the pattern on page 40 as a guide, make up a pattern for your size.

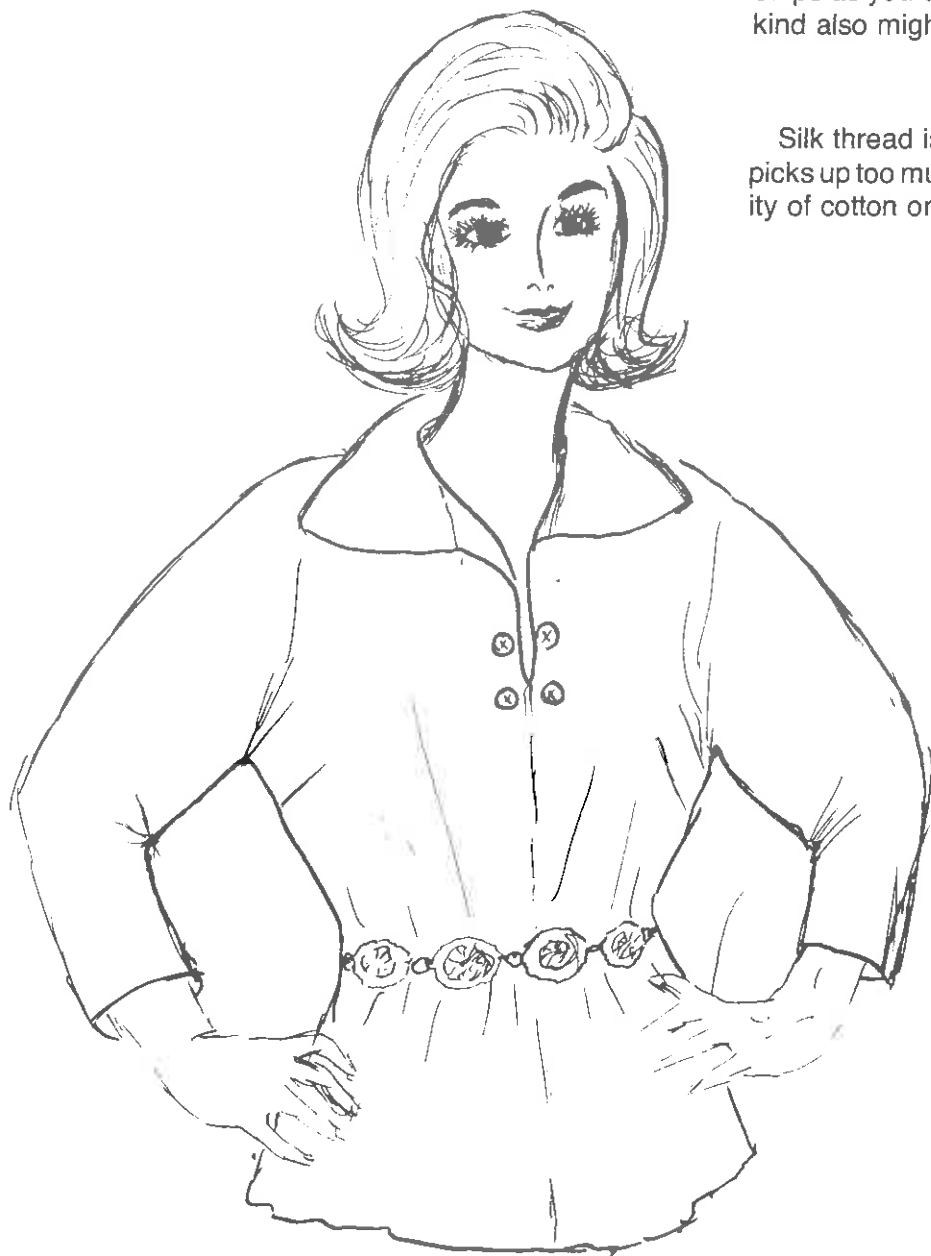
Almost any kind of soft leather can be used as garment leather, but the best are the specially tanned goat and calf suede skins, buckskin, horse hide, cowhide, and some steer hides.

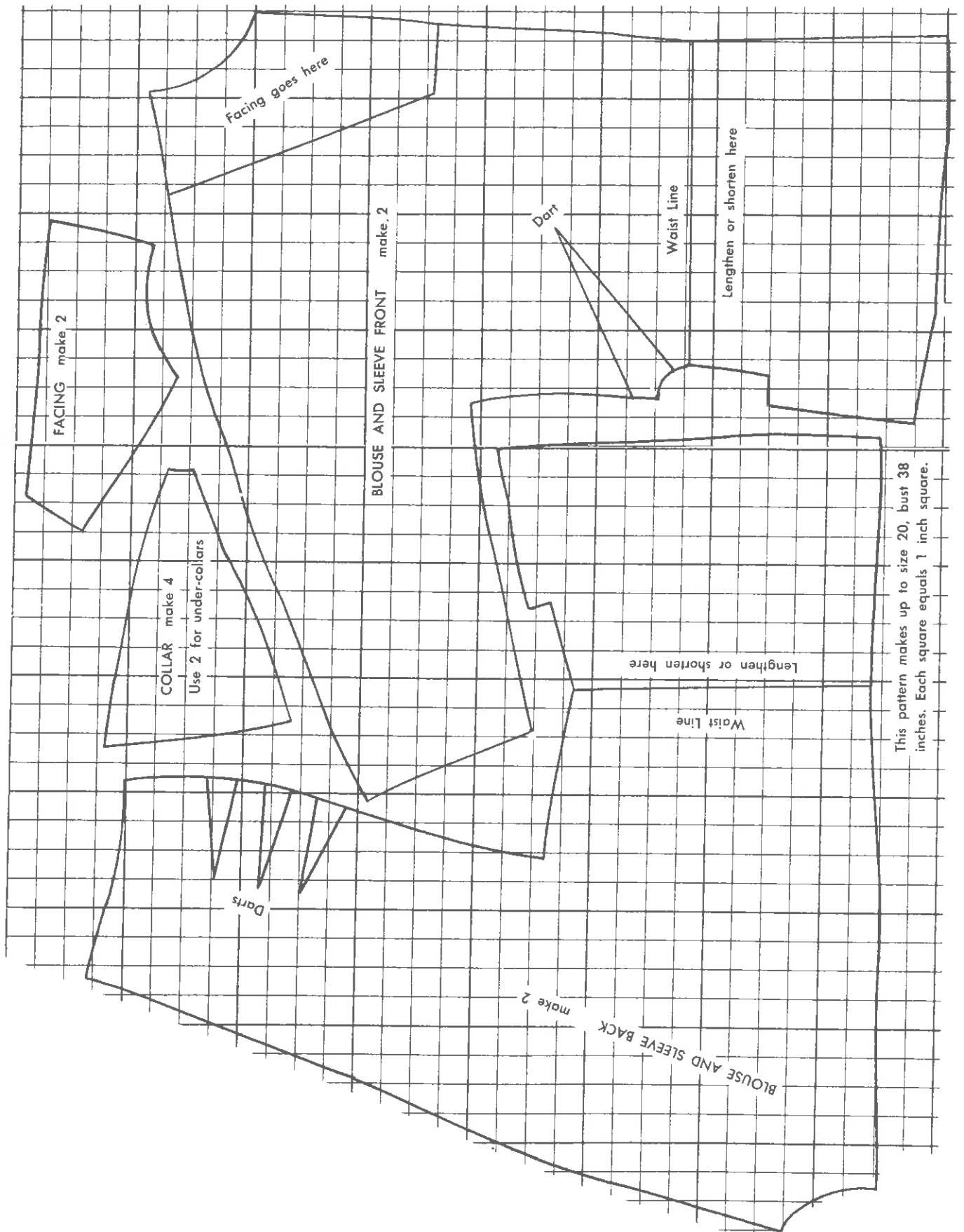
As you lay your pattern on the leather, remember the grain. It is like the warp of cloth, and like cloth, leather bulges and hangs improperly if it is cut

against the grain. Remember the grain and cut all pieces the "long" way. An exception would be in small trim pieces or collars which often are cut in several pieces.

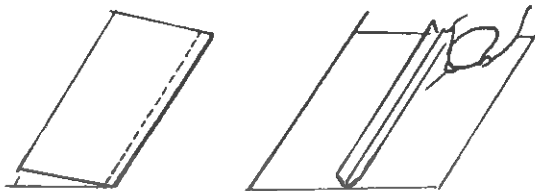
Do not try to cut folded leather. When deciding how to place the pattern pieces on the leather, cut separate pieces out of paper for all pieces needing to be placed on a fold or for two pieces that are identical. Pattern pieces can be pinned to leather provided the pins are put in the seam allowance. A good way to secure pattern pieces to leather is with scotch tape. Cut through tape strips as you cut out the leather. Weights of some kind also might be used.

Silk thread is the best thread for leather. Nylon picks up too much static electricity, and the durability of cotton or mercerized thread is poor.



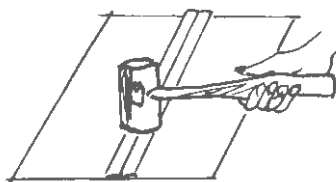


Finishing seams. Follow this technique on all seams.



A. Stitch seam.

B. Apply cement



C. "Press" by pounding with mallet. Lift seams up again, lightly.

You will need four skins of suede leather for almost any size blouse you make, because you can cut only one sleeve and back or sleeve and front piece from a skin — and you will need two of each. Smaller pieces will fit on a skin with the larger pieces.

Size 14—will need 4 skins of about $4\frac{3}{4}$ sq. ft. to $5\frac{1}{2}$ sq. ft.

Size 16—will need 4 skins about $5\frac{3}{4}$ sq. ft. to $6\frac{1}{2}$ sq. ft.

Size 18—will need 4 skins about $6\frac{3}{4}$ sq. ft. to $6\frac{1}{2}$ sq. ft.



Vests, Jackets, Shirts.

Use a simple pattern for a slipover vest or bolero. In making a vest, such as the one shown, place the pattern for the back piece on the hide, with the neck of the pattern at the neck of the hide. After the pieces have been cut out, assemble the garment by:

- • • sewing neckline darts in back.
- • • sewing bustline darts in front.
- • • joining back to front at shoulder seams and side seams

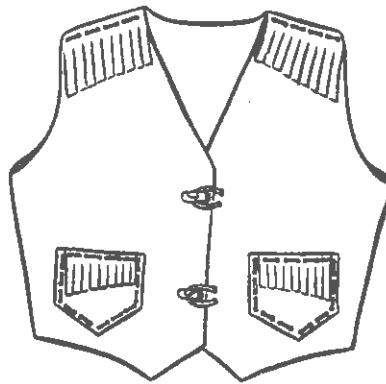


Turn the edge seams around the neckline and armholes. These edges can be cemented before sewing to assist you in stitching. If a zipper is used, sew it in at this point; then sew the contour or fitting darts (waistline darts). Measure the length by fitting, then turn and cement the bottom hem. Finish by stitching the hem.

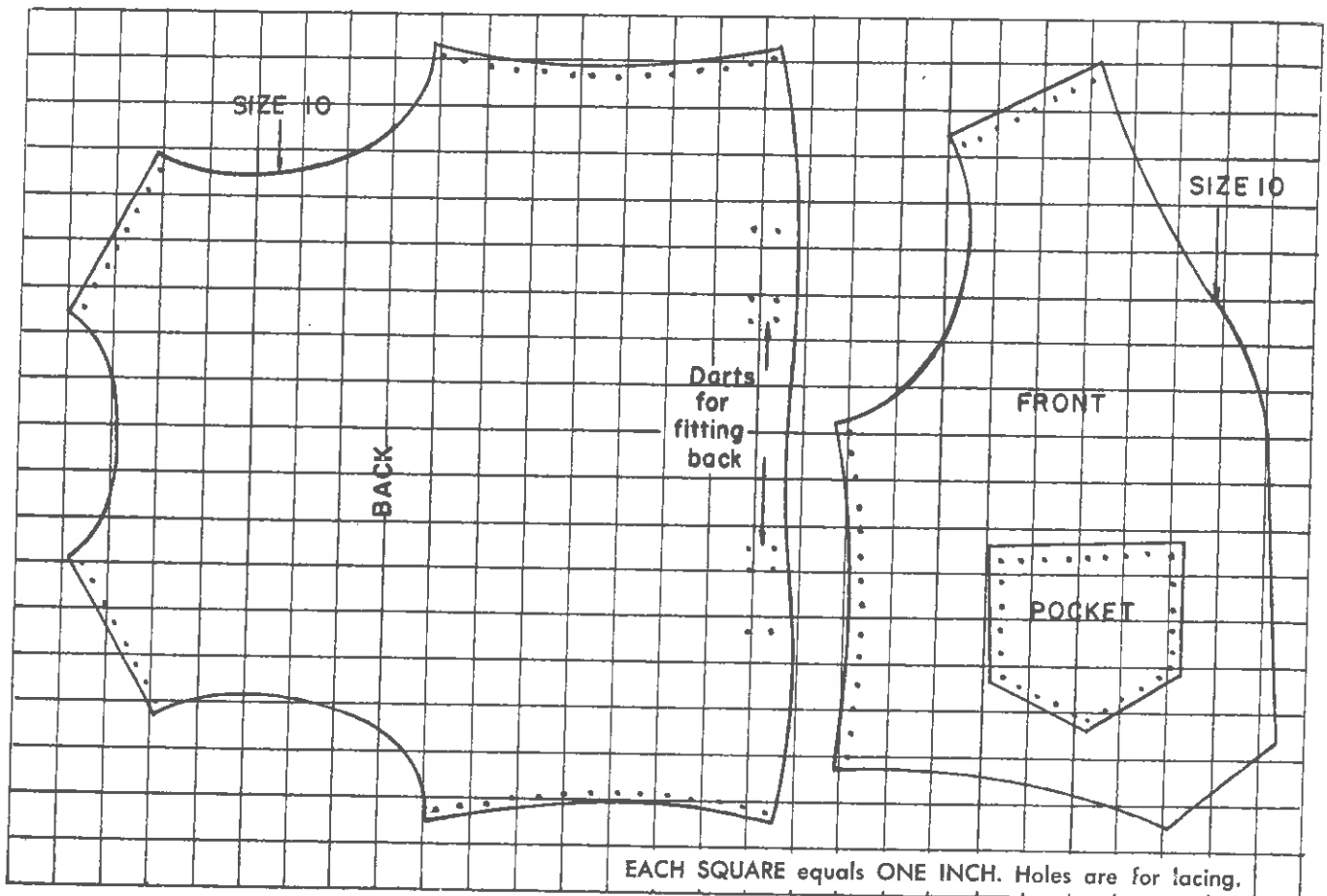
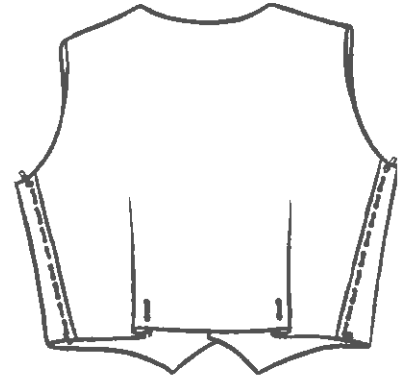
Small Boy's Vest



FRONT

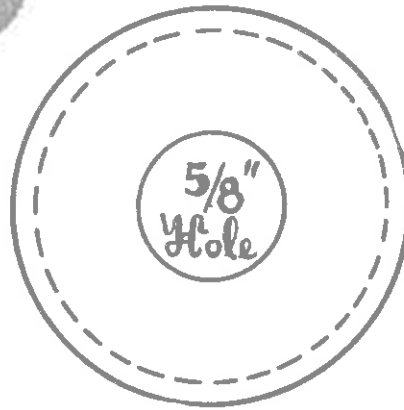


BACK

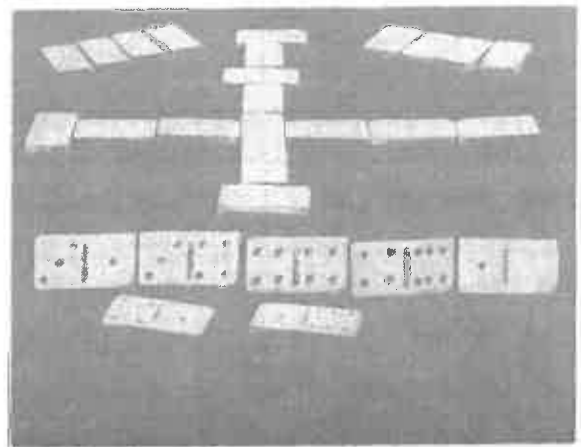


More Ideas

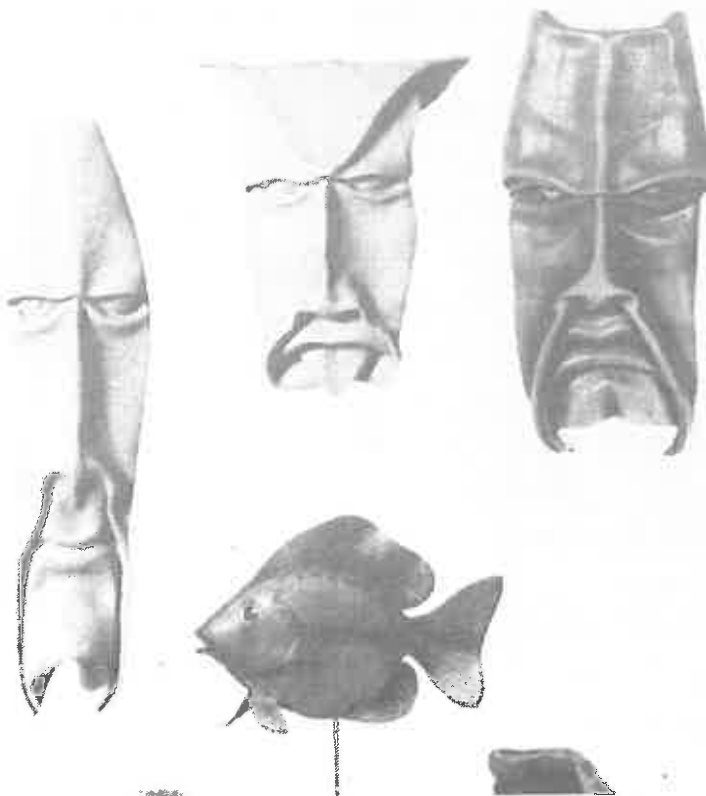
Doorknobs

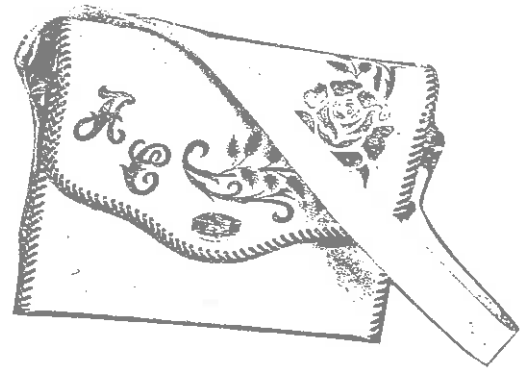


Dominoes



Leather Sculpture





Shoulder Bags



Ceremonial Dancer

This panel, resembling welded iron, appears to have been made from random-shaped pieces of scrap iron. Its unsophisticated design is meant to suggest working with an unwieldy material.

INSTRUCTIONS

Cut pieces of leather and place on background until design pleases you.

Glue leather pieces to background.

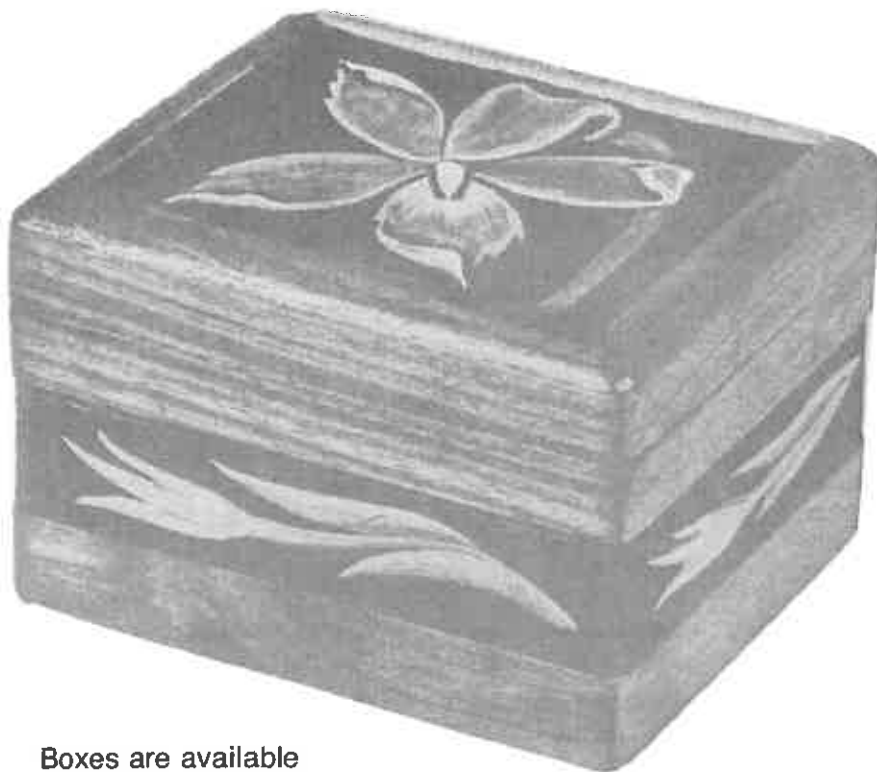
Spray panel with flat black enamel and let dry.

Apply rub-on type silver to dancer.

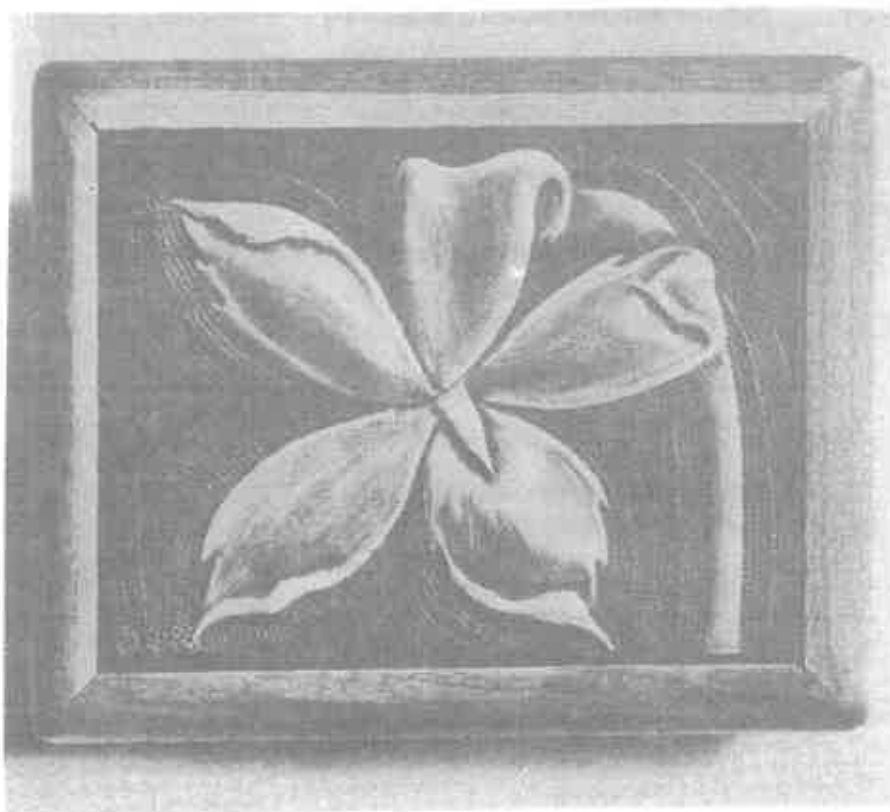
Spray on clear protective finish if desired.



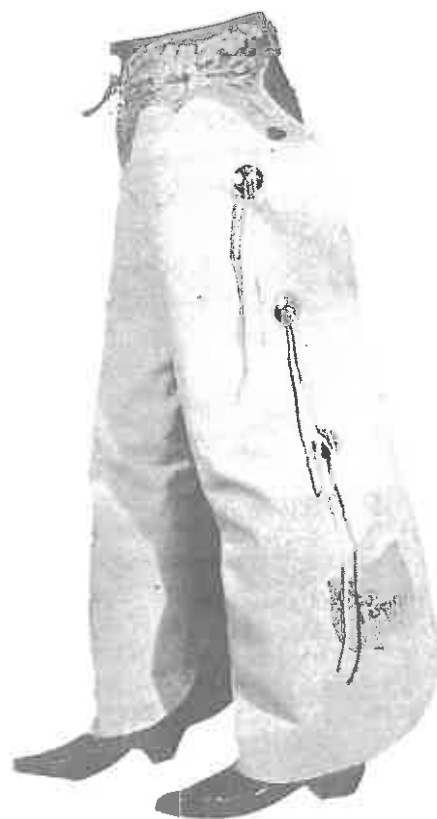
Walnut and Leather Boxes



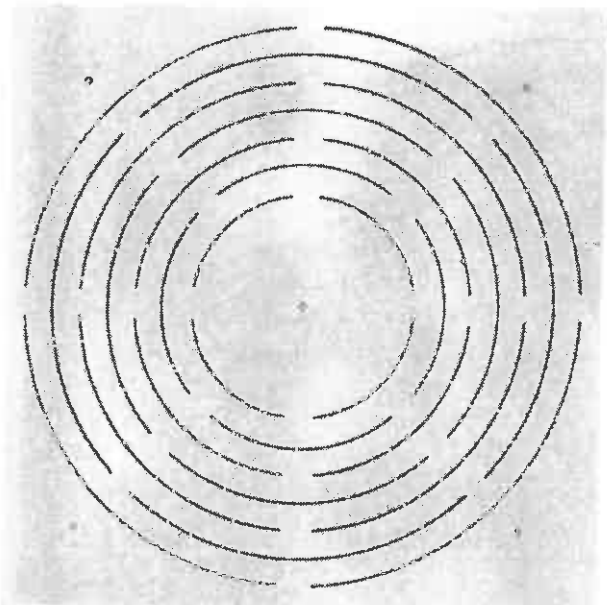
Boxes are available
from most handicraft companies.



Chaps



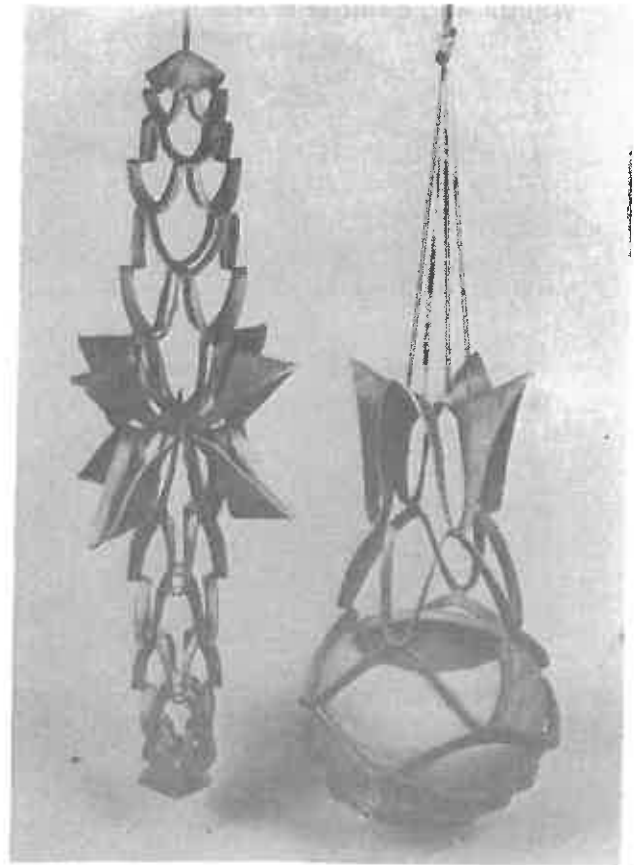
Mobile Sculpture and Hanging Planter



The pattern shown above can be used as a hanging planter or as part of a mobile sculpture.

The square corners add another dimension to the planter shown at right. The planter was made from a 14" square of leather. The center of the planter should be the same dimension as the bottom of the vase or container you are using.

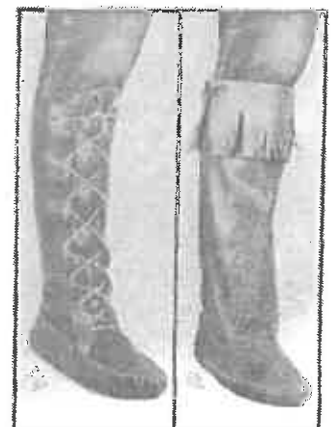
The pattern for center section of mobile sculpture is about 10". Make two and tie together.



Hat



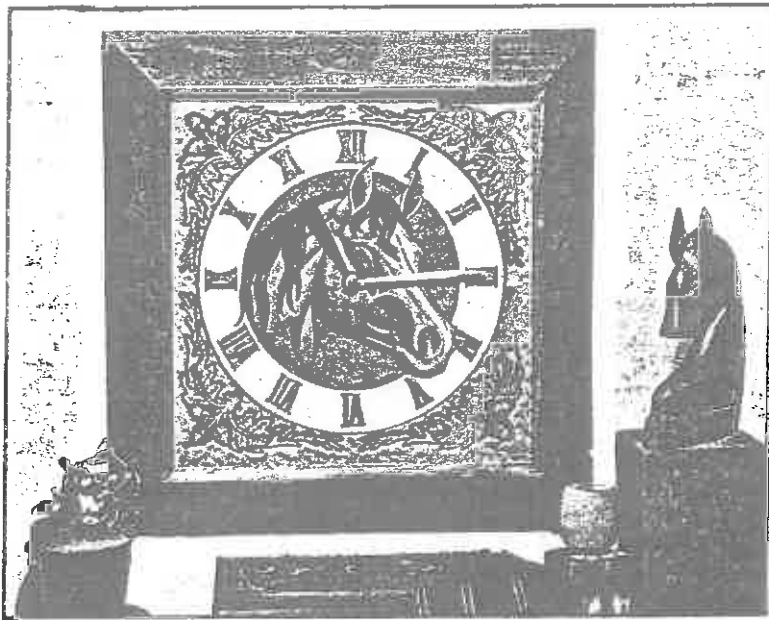
Boots



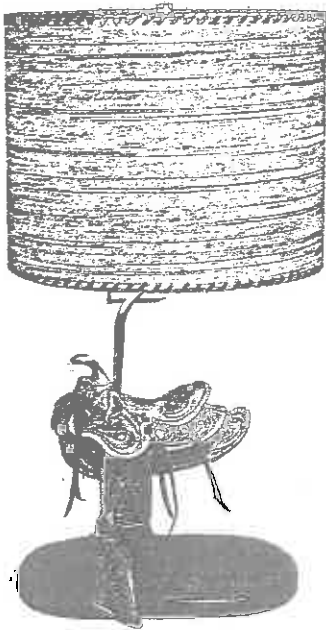
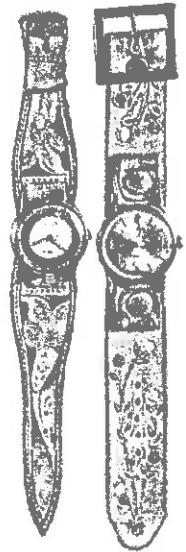
NOTEBOOK COVER

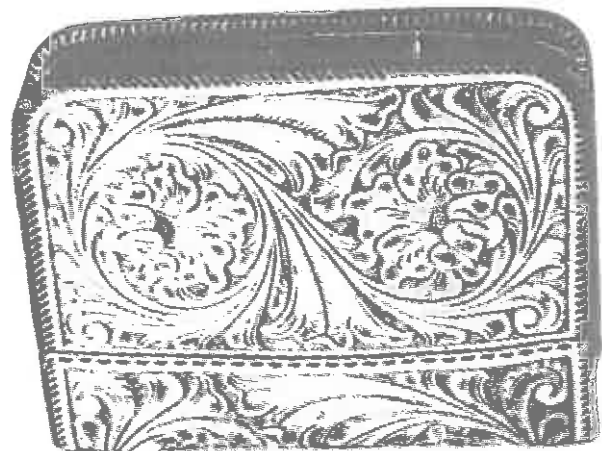
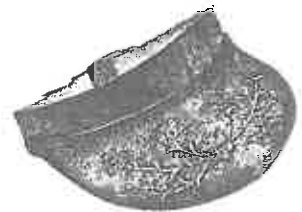
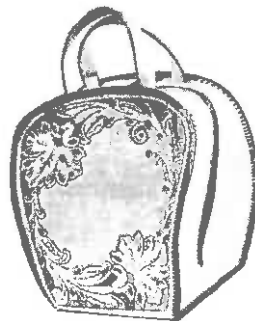
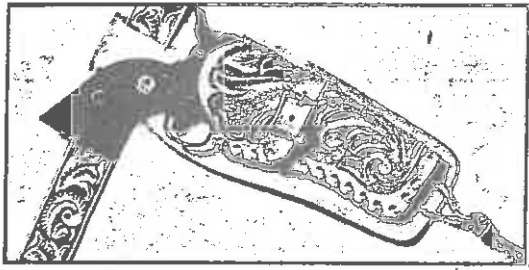




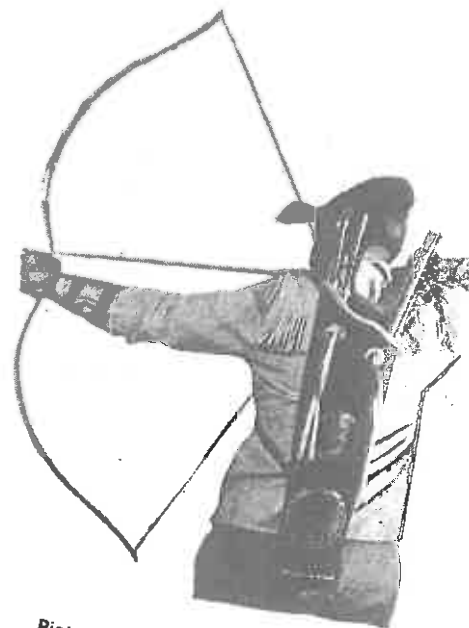


RIFLE HOLSTER

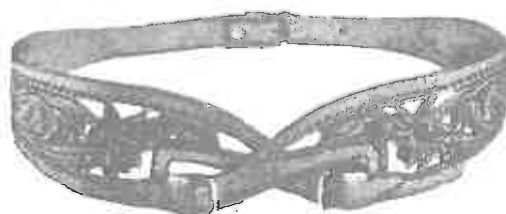
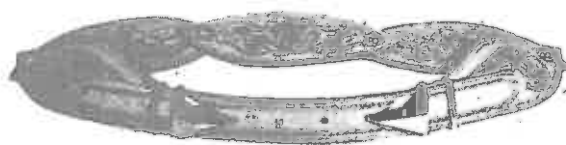
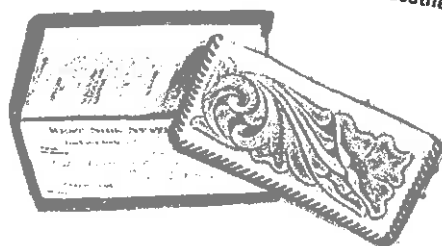


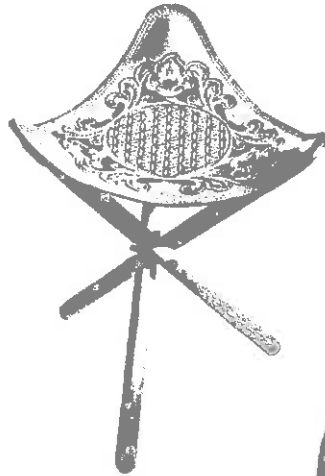


ZIPPER BRIEF CASE

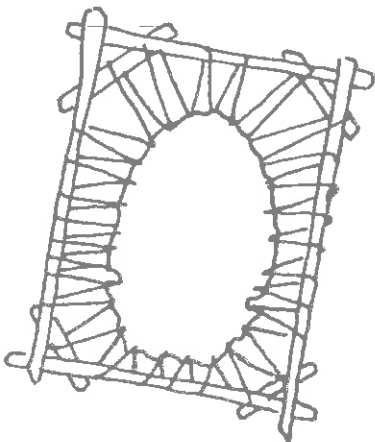
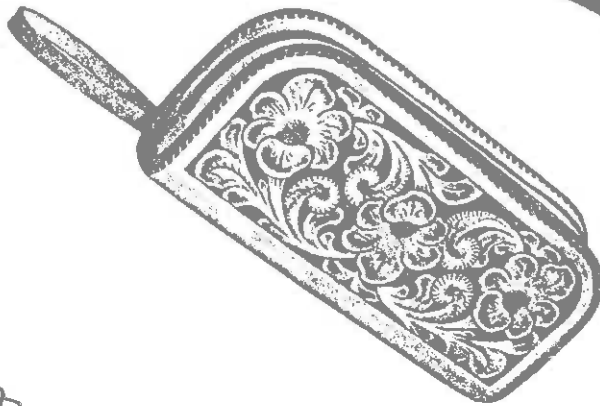
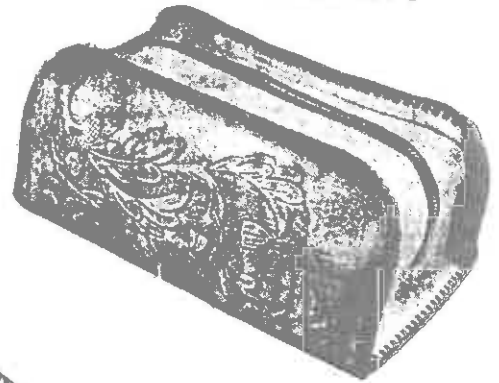


Picture donated by Al Frame
Tandy Leather, Rapid City, South Dakota





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REFERENCES

There are many books and pamphlets available about leather work. Here is a list of a few such books available at Tandy Leather Company, 1313 Lincoln, Denver, Colorado 80202; or 515 Main St., Rapid City, South Dakota 57701; 164 East 2nd Street, South, Salt Lake City, Utah 84103; and 229 East 1st St., Casper, Wyoming 82601; or from a library or bookstore. Many other good ones are available at leather companies. See list of a few companies listed in the Unit 1 leather circular.

Lucky Seven Book is one of the best beginner's books available. Fully illustrated; shows seven steps necessary for perfect carving. There are 25 designs suitable for different leather articles, 32 pages on how to use Craftaids, tool uses, basic carving techniques, etc.

How to Carve Leather by Al Stohlman shows how to carve leather quickly and easily. Contains 48 big 18½" by 12½" pages. You learn how to assemble 11 projects. 30 illustrated dye charts, 40 interchangeable photocarve patterns, 6 complete alphabets (3/8 inch to 1-1/2 inch letters).

Leathercraft Book contains 96 pages of excellent material, 145 "how to" illustrations. Complete patterns and instructions for making 19 projects. 43 basic leather working processes fully explained. Tells how to use and care for more than 24 leathercraft tools.

The Art of Leather Carving was written by master craftsman Ken Griffin. 30 full size patterns. Complete carving instructions for holsters, bill-folds, handbags, and many more useful projects.

Sandal Making. Simple illustrations and step-by-step instructions for making sandals.

How to Make Holsters shows how to make a holster to fit any hand gun made. 32 page book 11" by 17". Hundreds of photos, step-by-step illustrations plus extra features such as hand sewing, thong lacing, assembly techniques, etc. 16 chapters.

Inverted Leather Carving is fresh, up-to-date. Requires fewer tools than regular carving. This 48-page book, written by Al Stohlman, contains dozens of patterns, design suggestions, tips and hints. Every step fully explained and clearly illustrated so there's no guesswork.

Pictorial Carving shows you how to carve animals, birds, flowers, and scenery. Provides step-by-step instructions on the use of basic figure carving tools. Written by expert figure carver, Al Stohlman, 16 pages. Size 8½" by 11". Dozens of patterns and detailed drawings.

Leather Secrets, by F. O. Baird offers detailed information on every phase of leather work. Contains everything you will ever need to know. Size 13" by 25" book is 1 inch thick; and loaded with practical information such as how to select leather, instructions for hundreds of projects, 500 designs, 403 "how to" sketches. You'll treasure this book for a lifetime.

Projects and Designs, by Al Stohlman. Imaginative and creative ideas for crafting with leather.

How to Color Leather, by Al Stohlman is a must for both beginning and professional craftsmen. Contains 90 step-by-step illustrations, 8 full color pictures, full page color wheel and 5 color and dye mixing charts. Explains cross dyeing, figure coloring, highlighting, shading, etc. 34 pages. Printed in full color.

Patterns—for vests, hats, visors, back packs, boots, holsters, stuffed toys, animals, pictures.

Ideas for Leather Belts You Can Make—Step-by-step pictures show sizing, attaching hardware, and decorating patterns for both nature designs and floral carving.

Sewing with Leather is a 16-page book full of detailed, fully illustrated instructions. Explains leather sewing techniques that differ from ordi-

nary fabric sewing. Teaches you to make any type of leather garment.

Figure Carving, by Al Stohlman. Tells about tools to use, dyeing, patterns, how to carve animals.

"Make It Leather" magazine—a bi-monthly magazine to help you stay current with the latest patterns, techniques, and activities in leathercraft.

Films

(Available from Wyoming State 4-H Department free--write the 4-H Bulletin Room, Box 3313, University Station, Laramie, Wyoming 82071)

A — Beginners' Leathercraft, 13½ minutes.

B — The Art of Leathercraft Carving, by Joey Smith, 23½ minutes.

C — The Art of Figure Carving, by Al Stohlman — 17 minutes.



Mention of companies, brands, or products is made with the understanding that no discrimination is intended and no endorsement implied by the Wyoming Agricultural Extension Service.

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