SPRING 2002

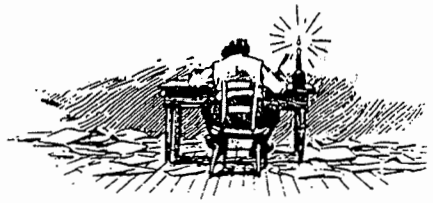
HOT IRON NEWS

VOICE OF [illegible] WEST BLACKSMITH ASSOCIATION

Inside

Cover: David Lisch's adult trikes are a real nostalgia trip!

HOT IRON NEWS is the official quarterly of the North West Blacksmith Association. Submission of materials is eagerly encouraged. Deadlines for submissions are February 1, May 1, August 1 and November 1.



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Annual Dues are $35 ($39 Foreign) and include a quarterly subscription to ***HOT IRON NEWS.***

For membership in the Artist-Blacksmith's Association of North America **(ABANA)** write to:

ABANA, Executive Secretary: LeeAnn Mitchell
POB 816
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(706) 310-1030 E-mail: abana@abana.org
Website: www.ABANA.org Fax: (706) 769-2841

Membership includes a subscription to the **Anvil's Ring** and **The Hammer's Blow** magazines. Regular membership is $45, Senior (65+) $40, Student $35.

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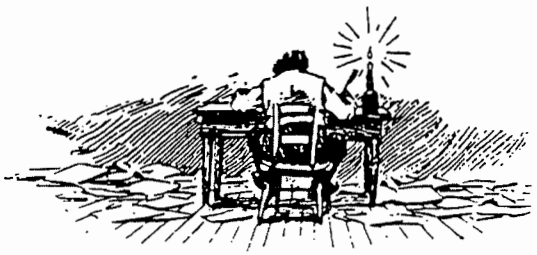
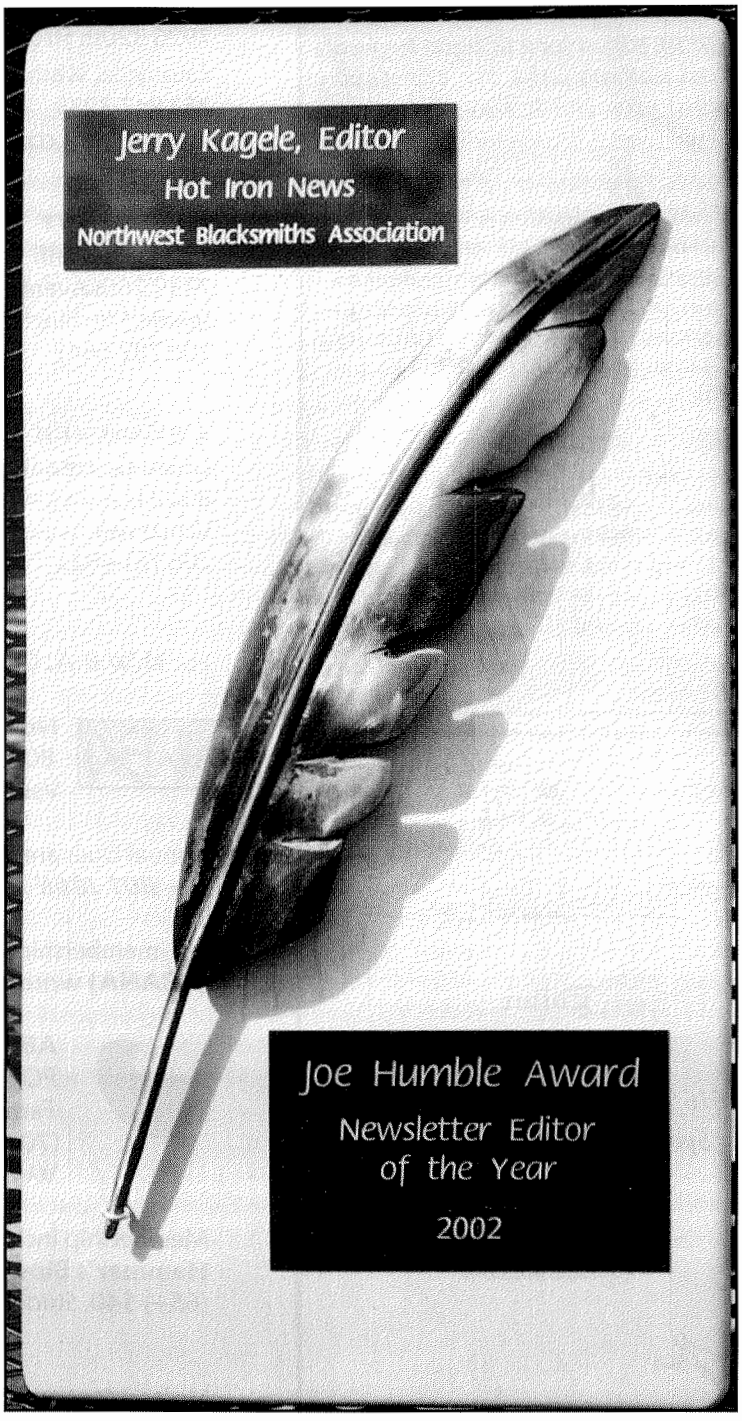


Editor's Notes

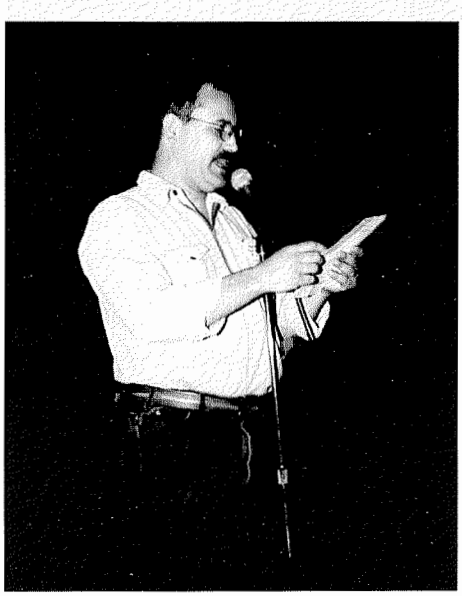


The ***HOT IRON NEWS*** was awarded the 2002 Joe Humble Award at the LaCrosse ABANA Conference! This award reflects the contributions to the publication by many members and supporters of the North West Blacksmith Association. The award is determined by a vote of the ABANA newsletter editors. As Editor for the past four years it has been a rewarding experience to review and edit the fine articles and photos of terrific forged ironwork. The N.W.B.A. is on the cutting edge of artistic experimentation and cross-discipline artistic fusion. The influence of glass blowing, sculpture, pottery, print, etc. is reflected in the innovative artwork produced by our artists. It is the mission of this editor to provide an appropriate showcase where this art can be displayed. I am constantly amazed at the diversity and creativity that is reflected in the gallery and auction pieces at our conferences. We have more than our share of true masters. However, I am often times more surprised at the serendipity displayed by beginners--who are not yet bound by conventional constraints! All of this interaction boils together to produce a very interesting artistic brew. Different skill levels learn from each other. The masters absorb the creativity and imagination of the novices. It is a wonderful organic process. The editor observes this artistic foment and attempts to chronicle and nurture it within these pages. And, just occasionally, to do so by cracking jest! Thanks to all who have supported this publication, in whatever capacity! Only one promise--the best is yet to come . . .

A painter exclaimed to Degas, "At last I have found my true style!" "Well," said Degas, "I'm glad I haven't found my style yet. I'd be bored to death."

AND NOW . . .

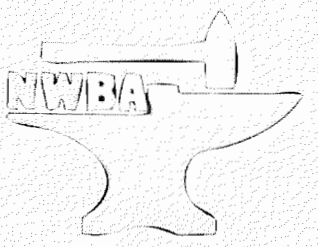
A FEW WORDS FROM THE PRESIDENT!~



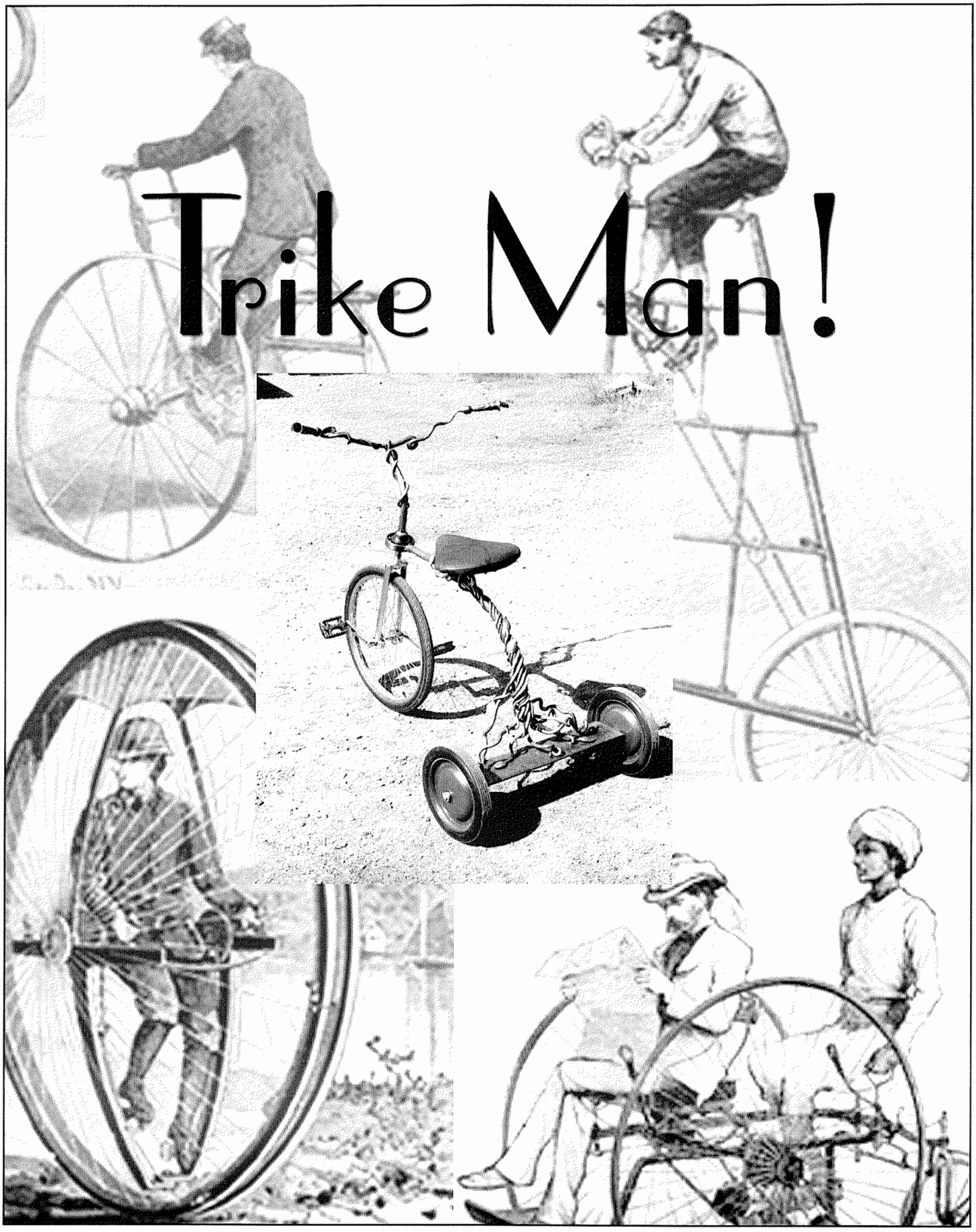
First of all, I would like to thank Don Kemper for all the years of hard work that he dedicated to the N.W.B.A. during his term as president. As Jerry Kagele mentioned in the last *HOT IRON NEWS*, during Don's term as president a lot of great things have taken place. Thanks to Don's leadership, N.W.B.A. membership is at an all-time high, we have a grant and library program, we have upgraded and expanded our conference equipment (i.e. trailer/bleachers/sound-system/gas-forges), we are fiscally sound and we have expanded our conference activities to include teaching stations. These are but a few examples of the many things that have taken place during Don's term as president. However, Don will be the first to say that he did not do all of this by himself . . . that the N.W.B.A. members as a group made the N.W.B.A. what it is today. Well, Don, I would have to agree that the volunteer efforts of the N.W.B.A. members are really what has made the N.W.B.A. such an outstanding organization, and again **THANK YOU, DON** for all of your volunteer efforts and years of service as president! Don has agreed to remain on the board to help me get up to speed with all the finer details and inner workings of the N.W.B.A. This will be a big help to me because I have only been on the board of directors for a year and still have some questions about how a nonprofit blacksmith association conducts business. Although I am relatively new to the board of directors, I have been a member of the N.W.B.A. for nine years now. I remember attending my first conference in 1993 at Russell Jaqua's old shop at Fort Worden State Park in Port Townsend, WA. I really thought I was in heaven. For the previous year I had been looking for some people who knew about blacksmithing and I had just found a whole group of them who were willing to share their knowledge of the craft. Oh boy, was I ever hooked! Since that first conference, I have been lucky enough to have attended them all. I cannot begin to tell you how much knowledge I have gained from the membership of the N.W.B.A. So now I will attempt to partly repay you for all you have given me by serving as president of this great organization. I can never hope to do as good a job as Don Kemper, but I will give it my best shot. *I'm looking forward to working with all of you!*

WORK SAFE AND ENJOY YOURSELVES!

Mark Manley

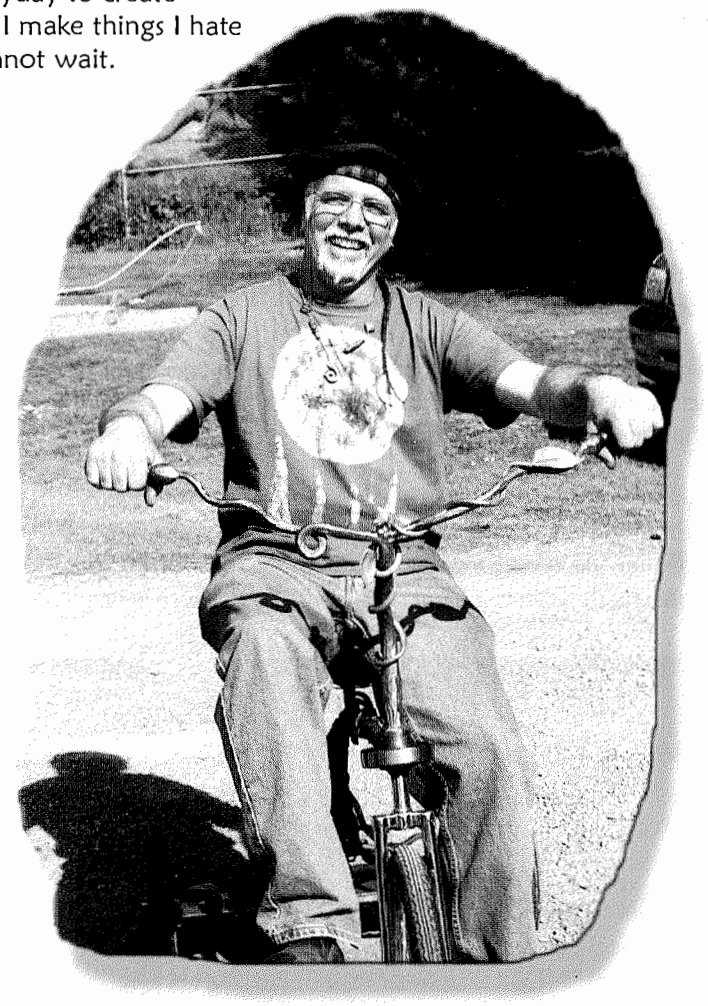


Trike Man!



Just A Good Day ~ David Lisch

I woke up this morning when I was damn good and ready
Lite up the forge and held the hammer steady.
I applied to the steel what little I know,
and as the fire burned I watched things grow.
Now I am riding my trike made of fire and steel,
and it is hard to put words on the way I feel.
It seems I wake up everyday to create
I make things I like and I make things I hate
and for tomorrow I cannot wait.



I'll go to the forge and I won't be late,
with hammer in hand and the fire aglow
I'll apply to the steel what little I know.
I will look at what I've made at the end of the day,
and hope it is not something that just gets in my way,
but if it is I'll just look at it and say,
Thank God tomorrow I've got another day!

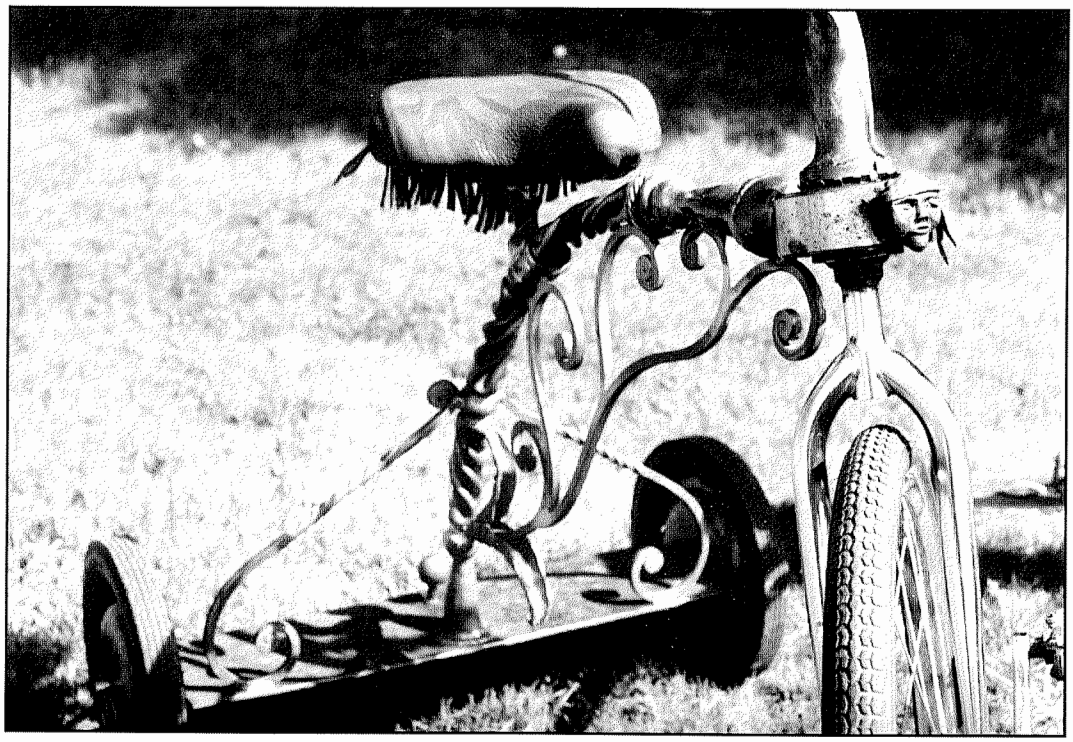
Seattle Blacksmith Dave Lisch forges adult-size Tricycles that are a blast to peddle around . . .

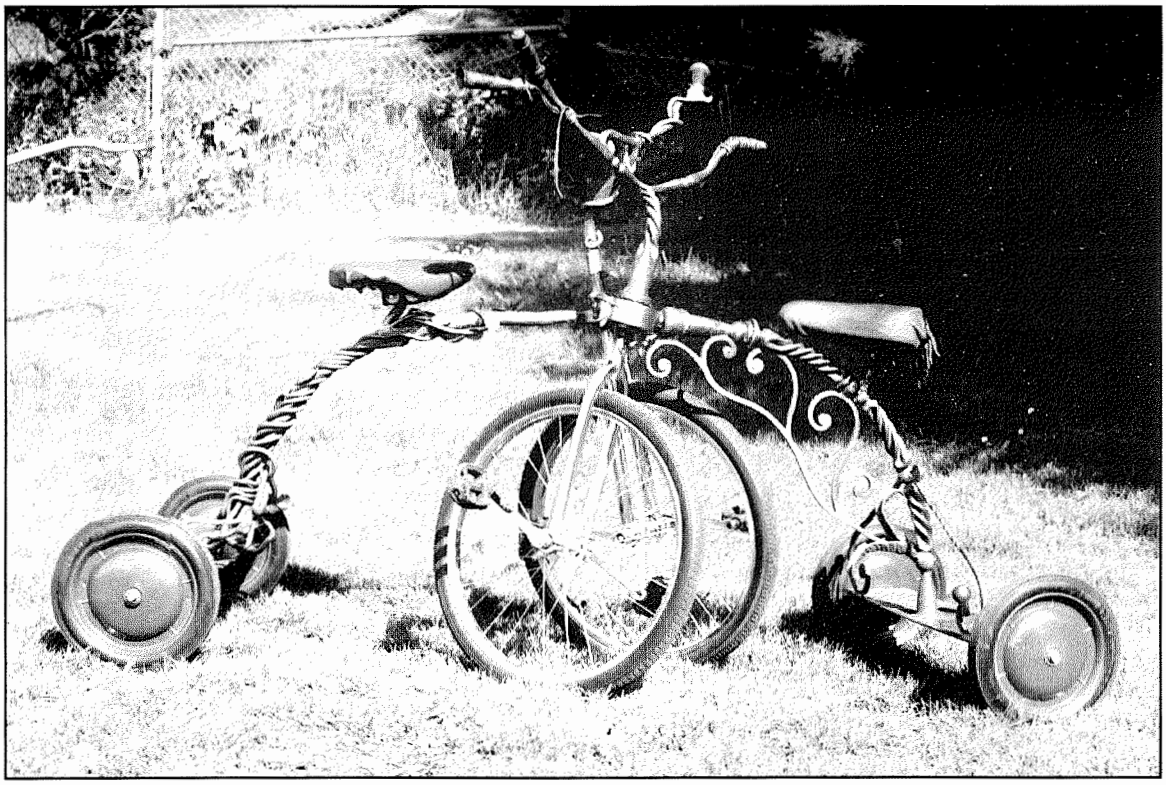
When people ask me why I became a blacksmith, I answer, "because I love it." I have been working with metal since I was 15 years old but I did not start to love it until I started blacksmithing. My first job was in a metal shop. Old Man Hawks, of Hawk's Welding, had a 50 lb. Little Giant that was never used. It sat in the corner covered in layers of oily dust. Years later I wonder how different my life might have been if that machine had been running.

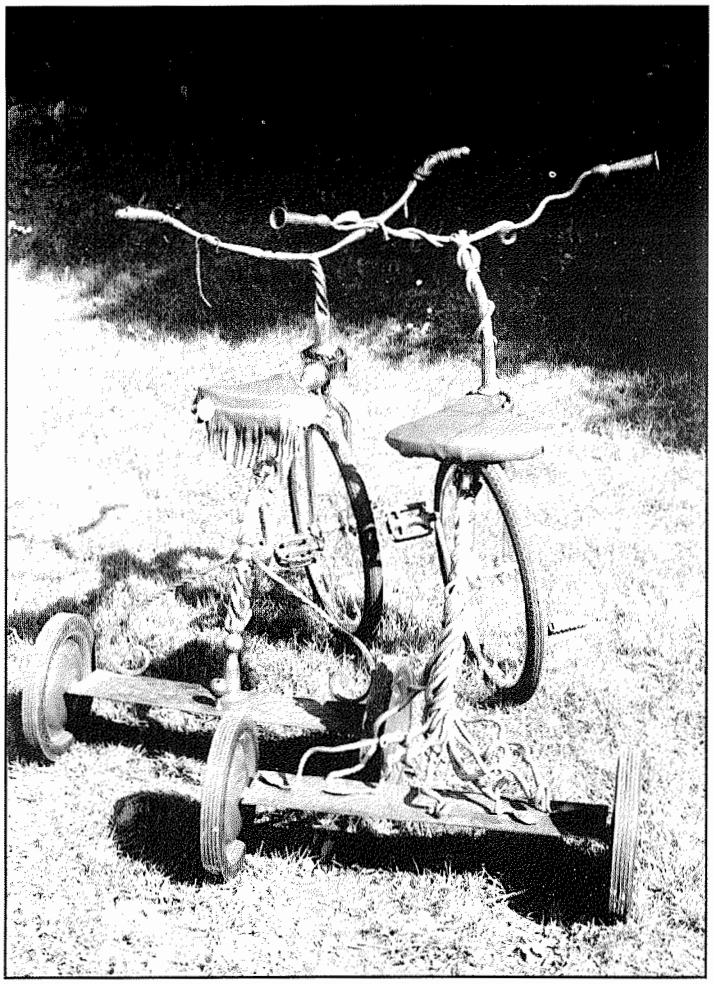
I left the Napa Valley after spending many years there as a structural welder and fabricator. But, it was not until I met my wife in Seattle that I experienced my first blacksmith class at Old Cedar Forge in Allyn, Washington. That class truly changed my life. I came home Sunday night so excited, and by Monday afternoon I had my first forge fired up. Since that time I have not slowed down. I have been honored to have Darryl Nelson of Fire Mountain Forge take me on at his shop several days a month and in the two years with Darryl I have learned a lot about smithing and running big hammers. I have never passed up an opportunity to learn more about blacksmithing.

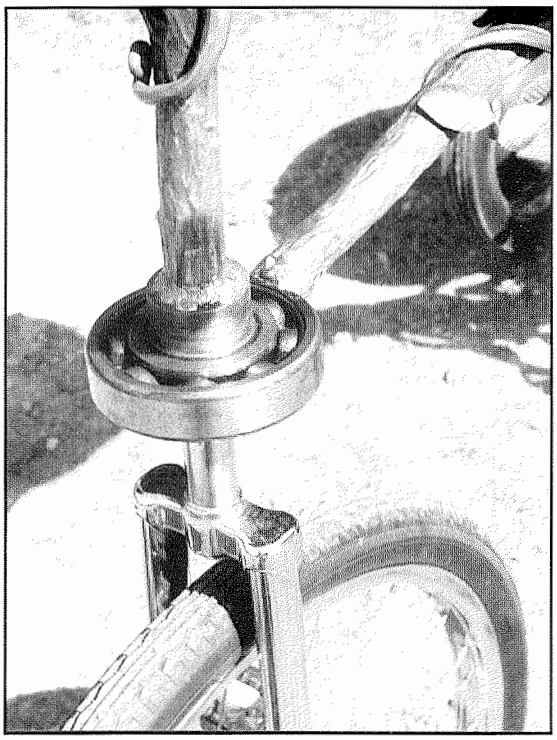
Andrea and I have a great shop in Seattle and often find ourselves down there even on an odd day off. We have a philosophy concerning iron that includes a marriage of form and function. Our pieces are forged to bring out the beauty of the iron, yet maintain the function that is iron. The strength of the piece is in the forging.

The tricycles evolved because of our love of forged elements and forms. In truth, we made the first one to help move iron from one side of the building to the other, which is why it has a trailer hitch. What happened was that we created something that gave us a little thrill. Riding the trikes is like stepping back into childhood for a moment and remembering innocent pleasures. In their simplest definitions the tricycles are a fun ride–a way to derive a little pleasure and bring some smiles to others!

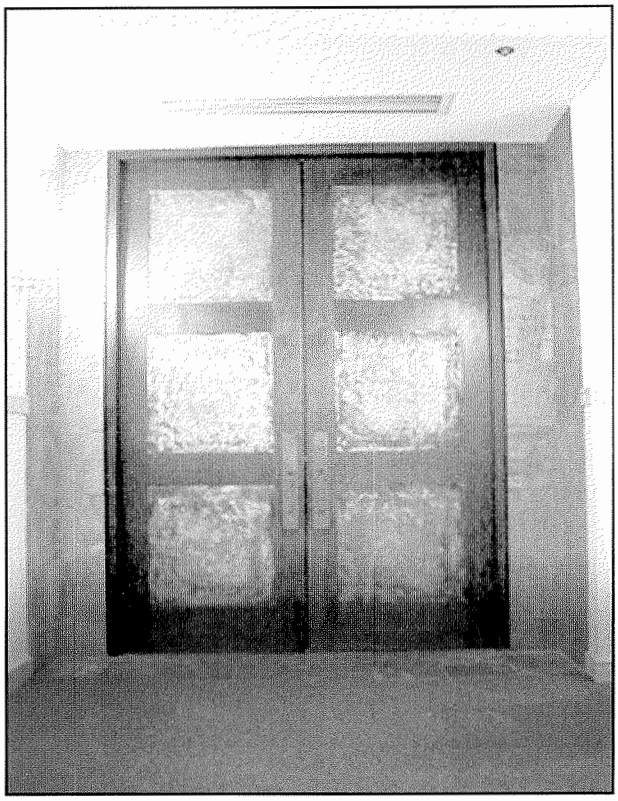


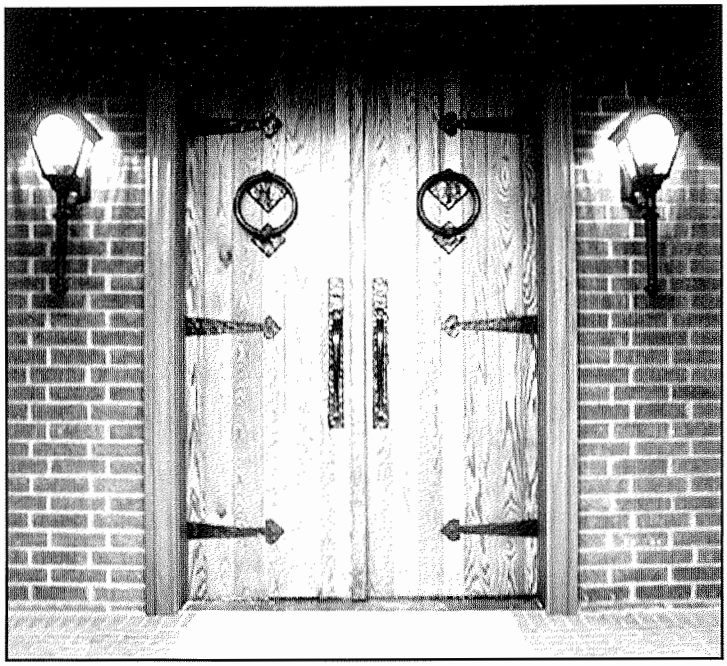




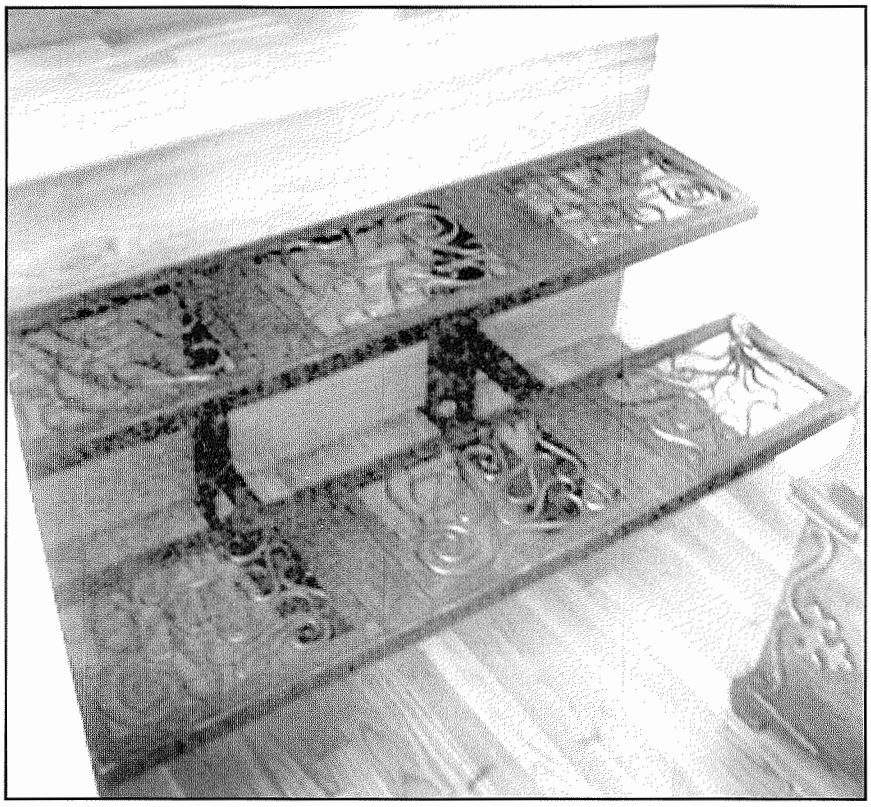


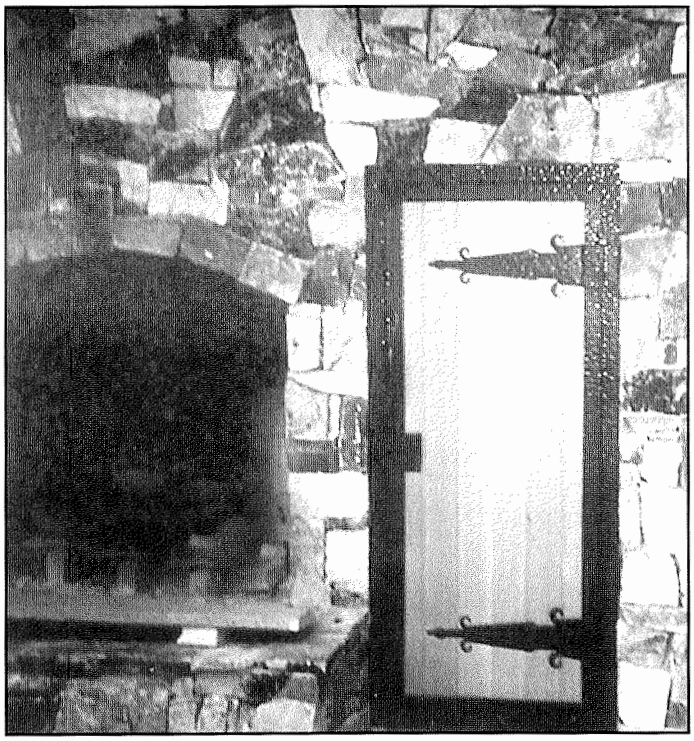
A bearing, welded onto a unicycle frame, joins the handlebars to the main frame.

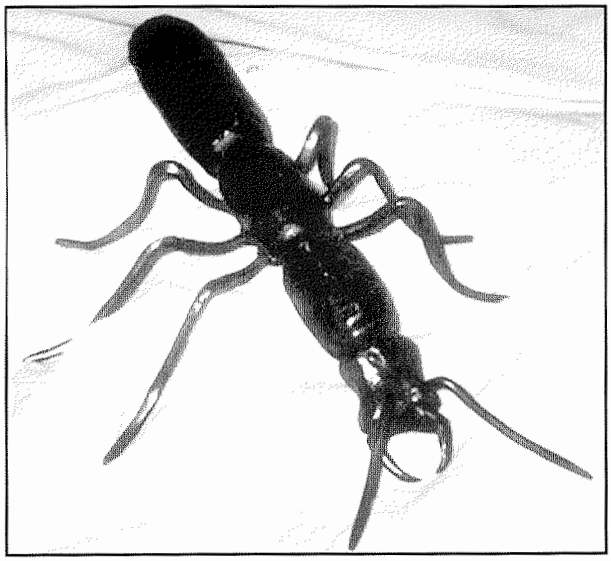




Lisch ~



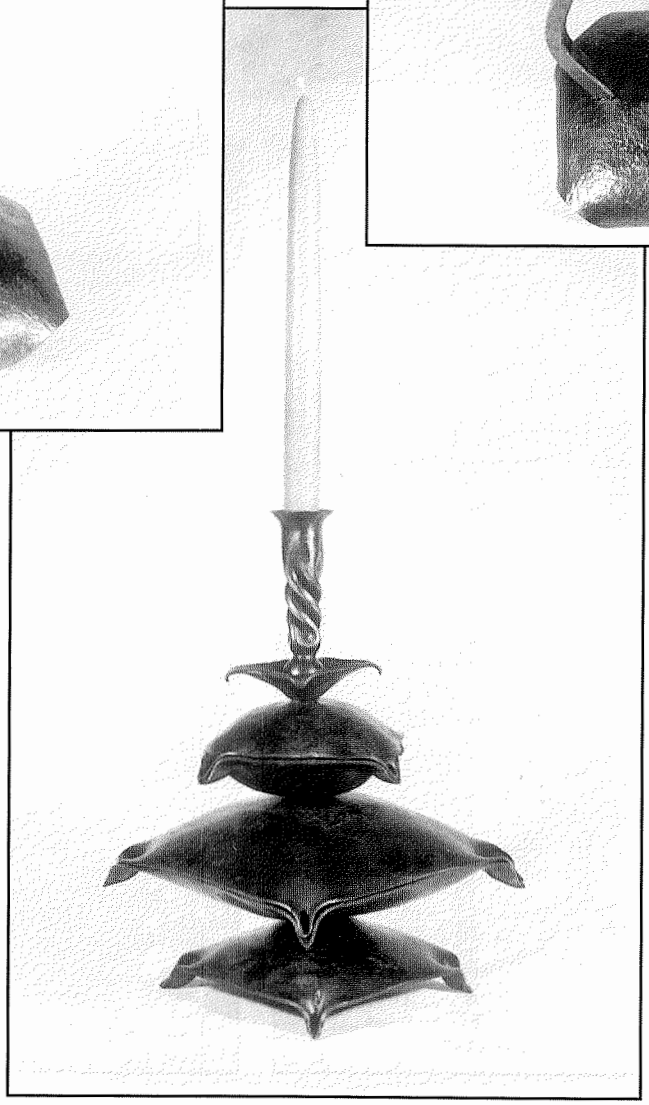




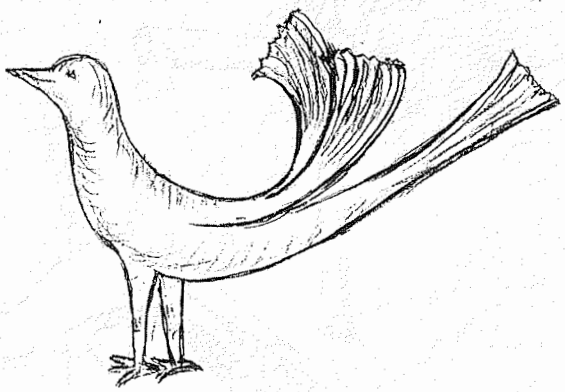
Lisch ~

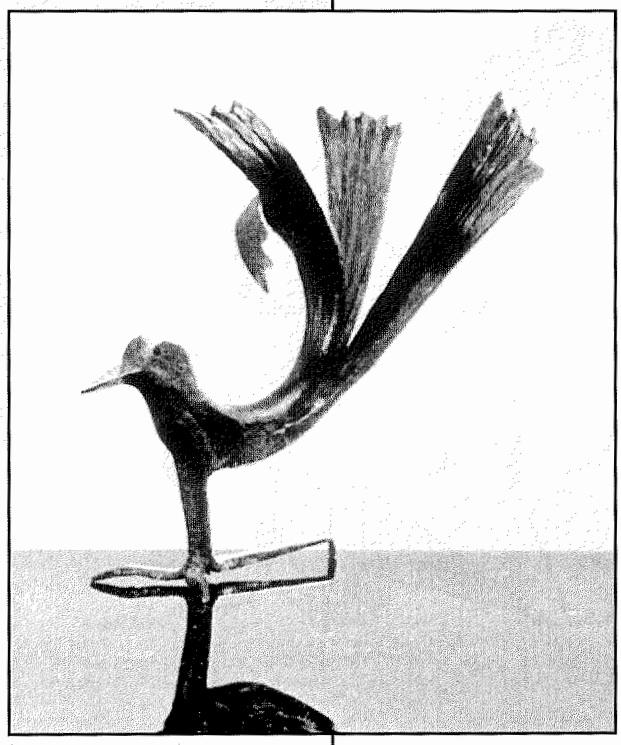
Some Funky Art

Lisch~



Double Pillow Box Candleholder

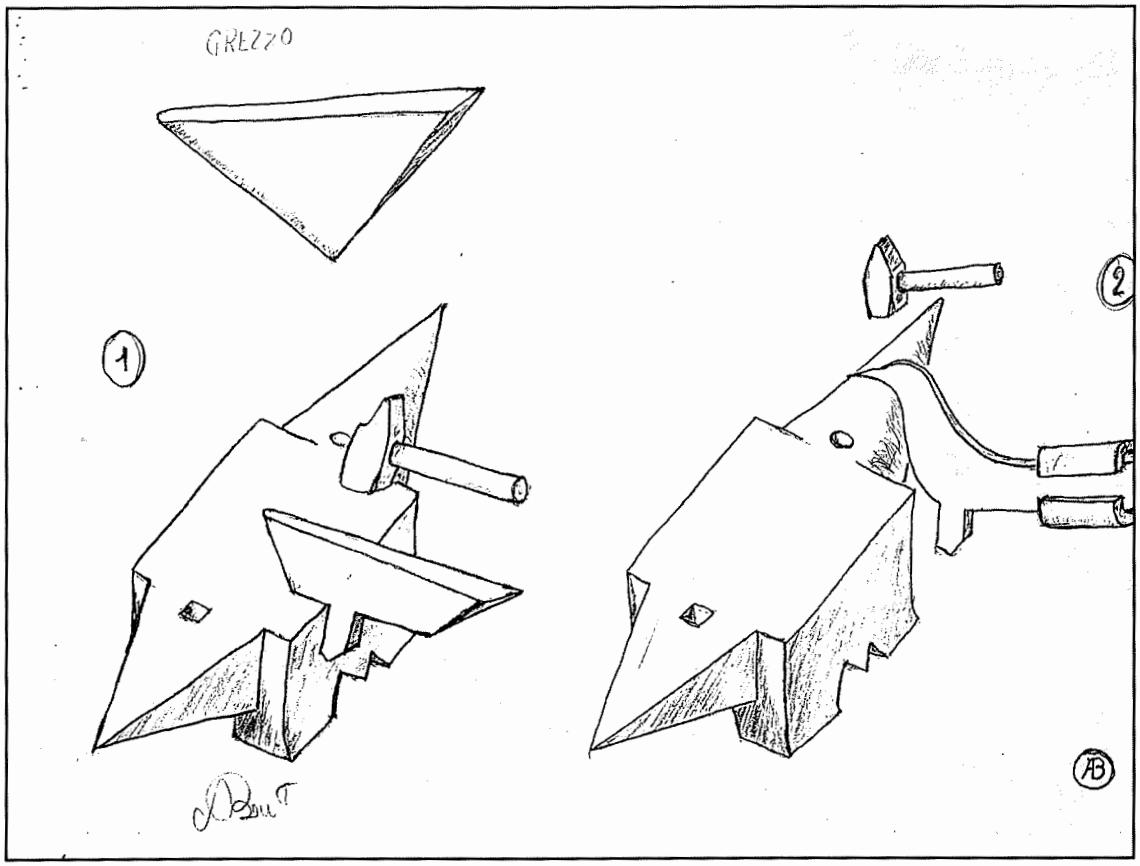


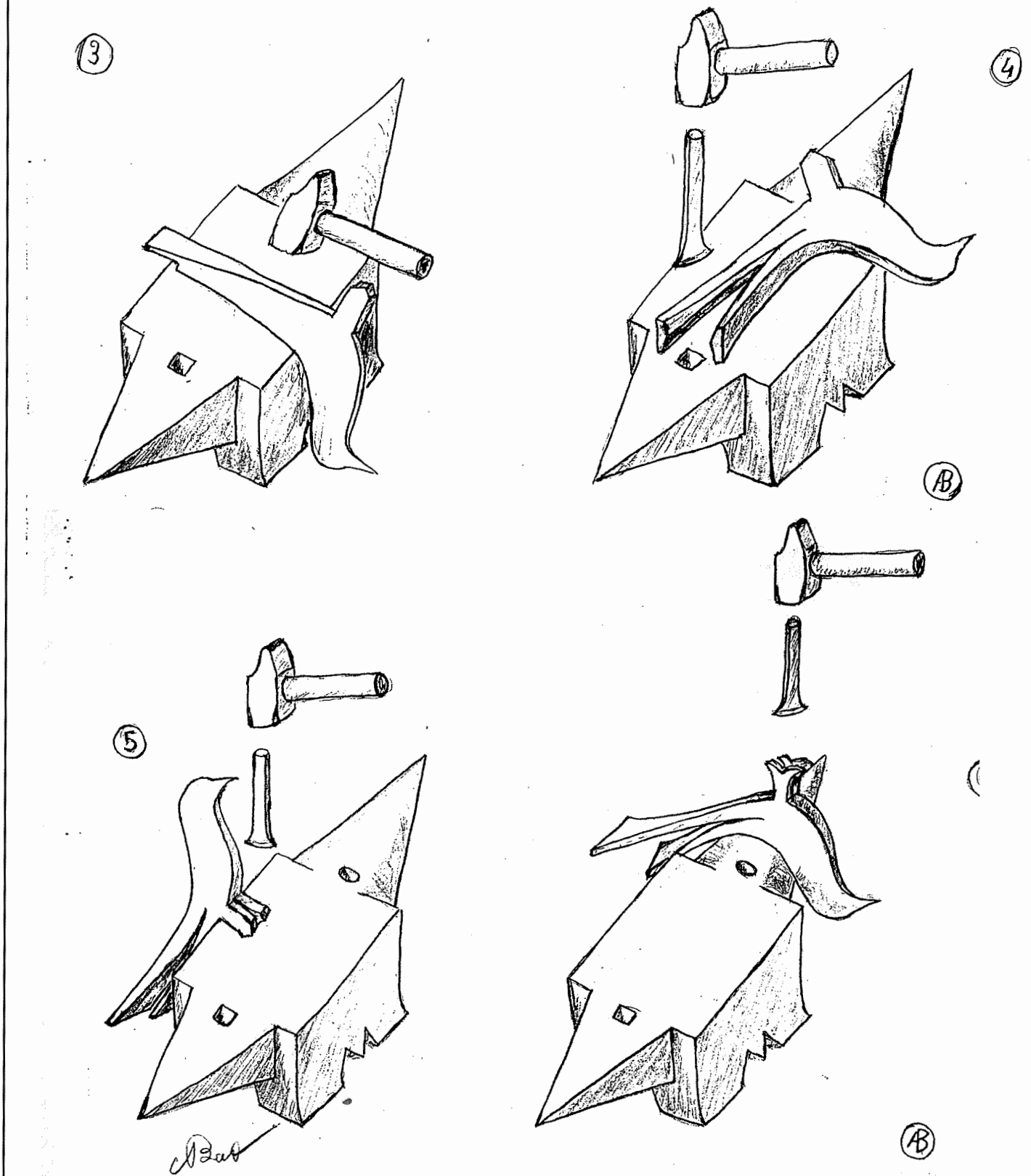


Angelo Bartolucci

RICAVATO da un solo pezzo

1992

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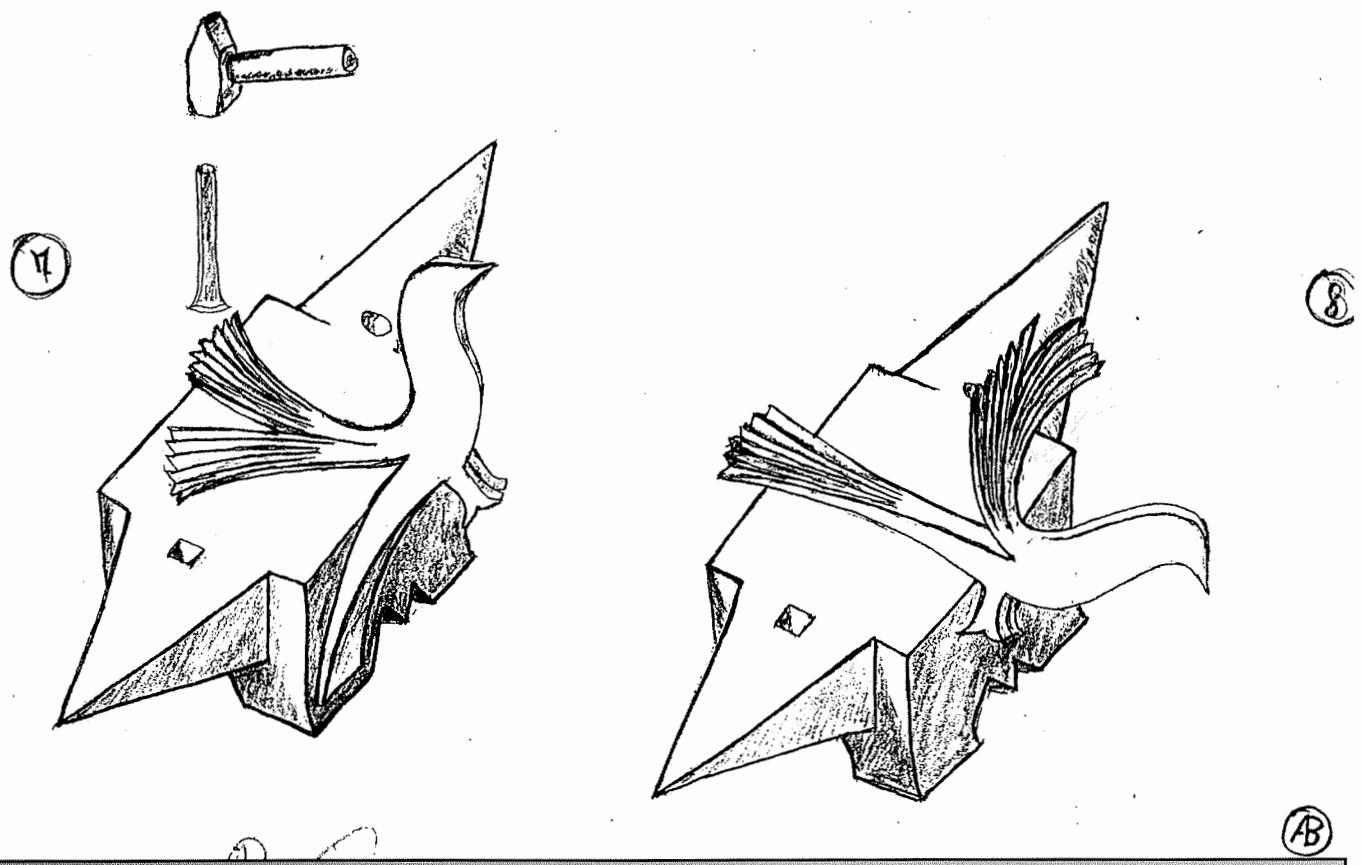
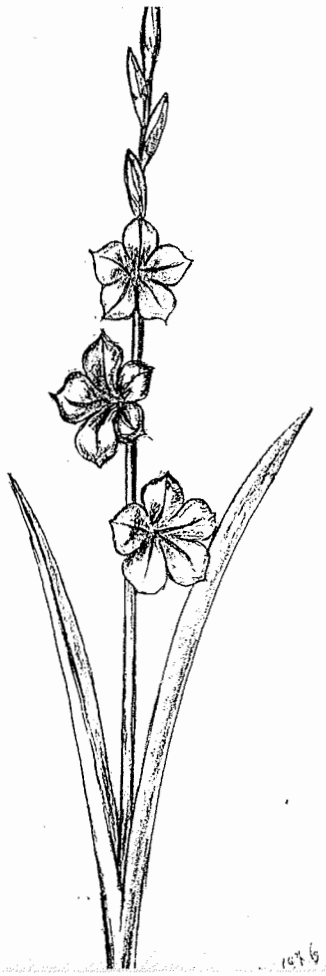
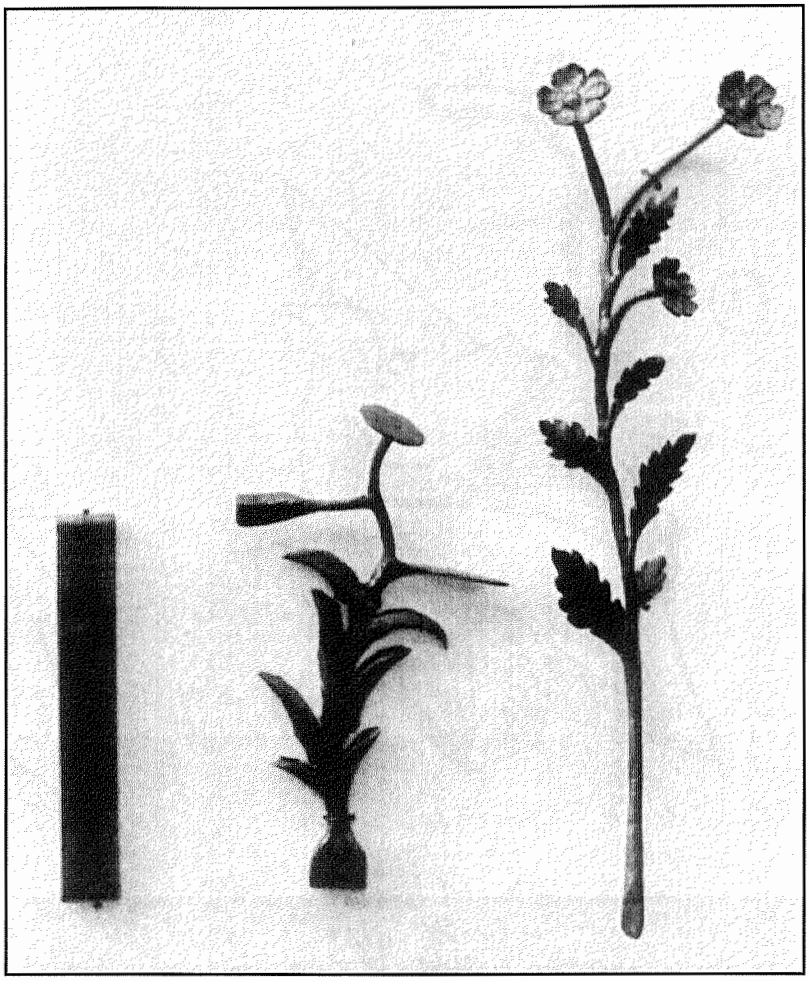
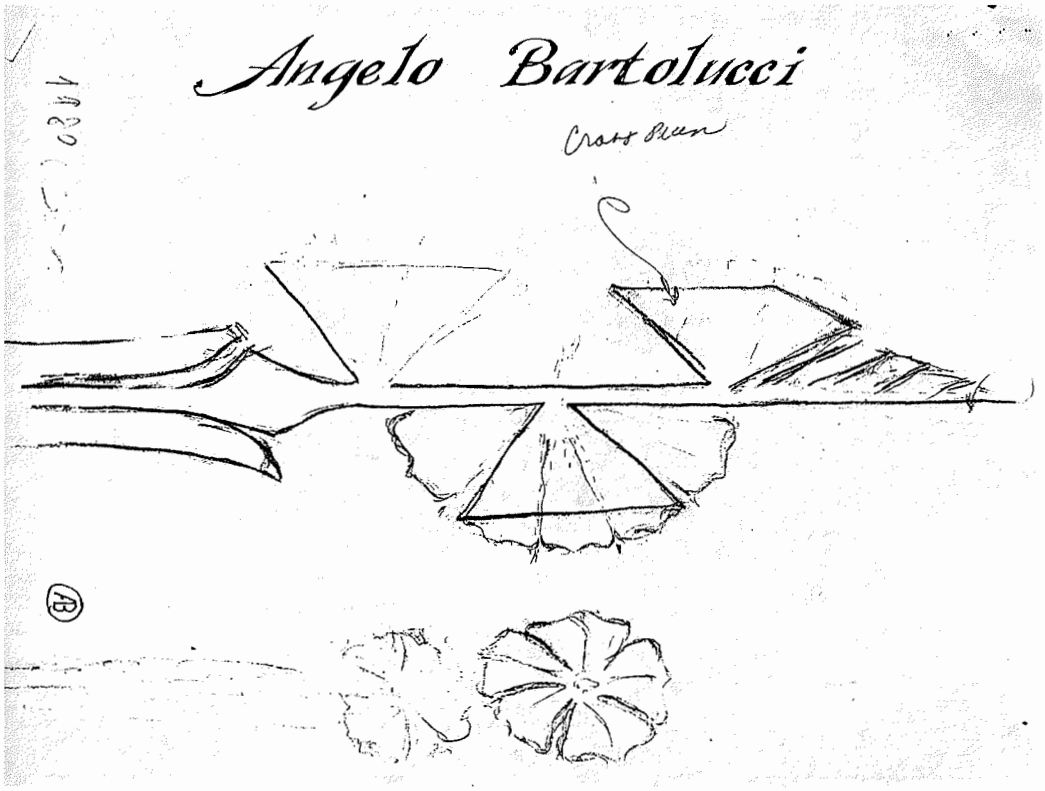
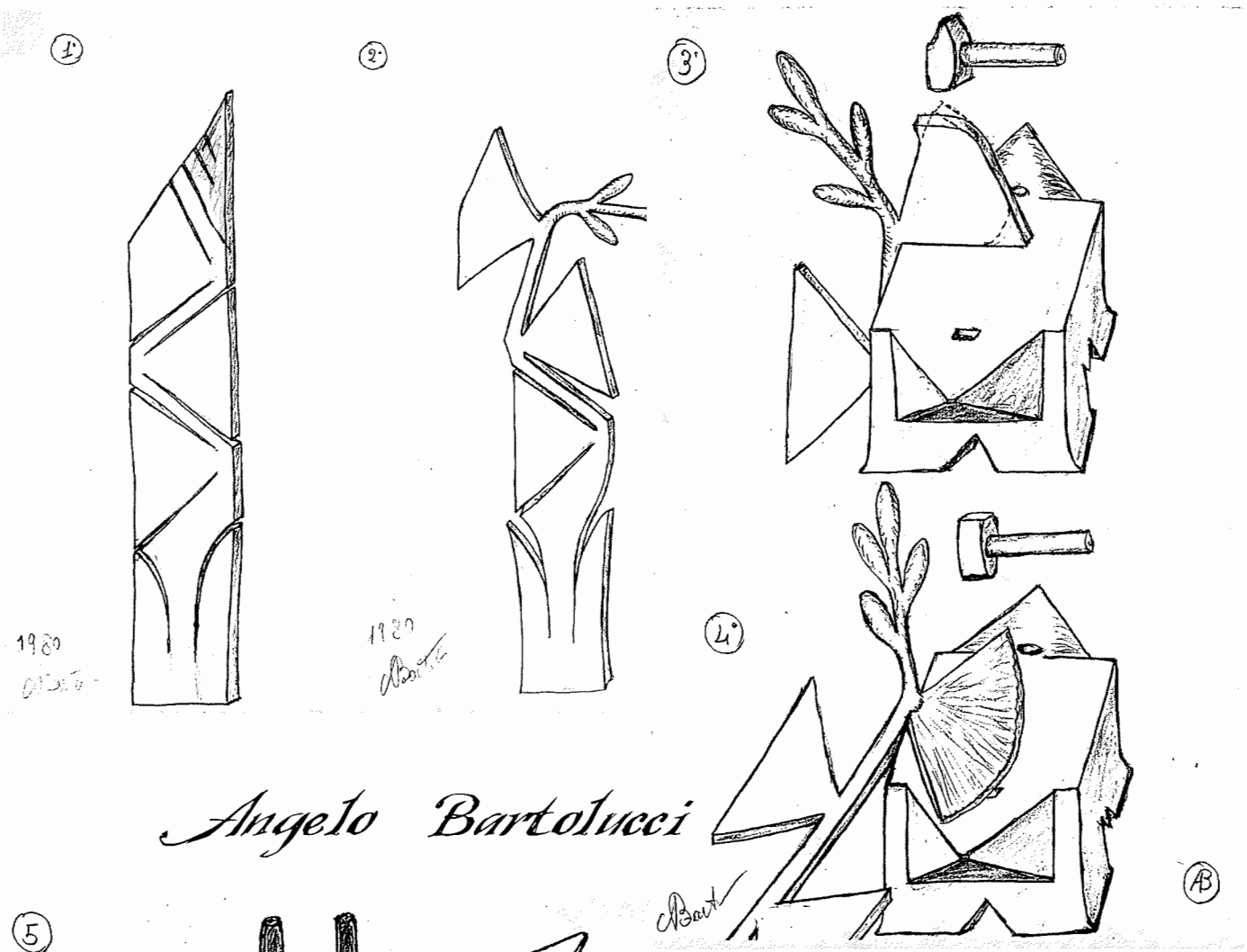







Angelo Bartolucci
Cross Plain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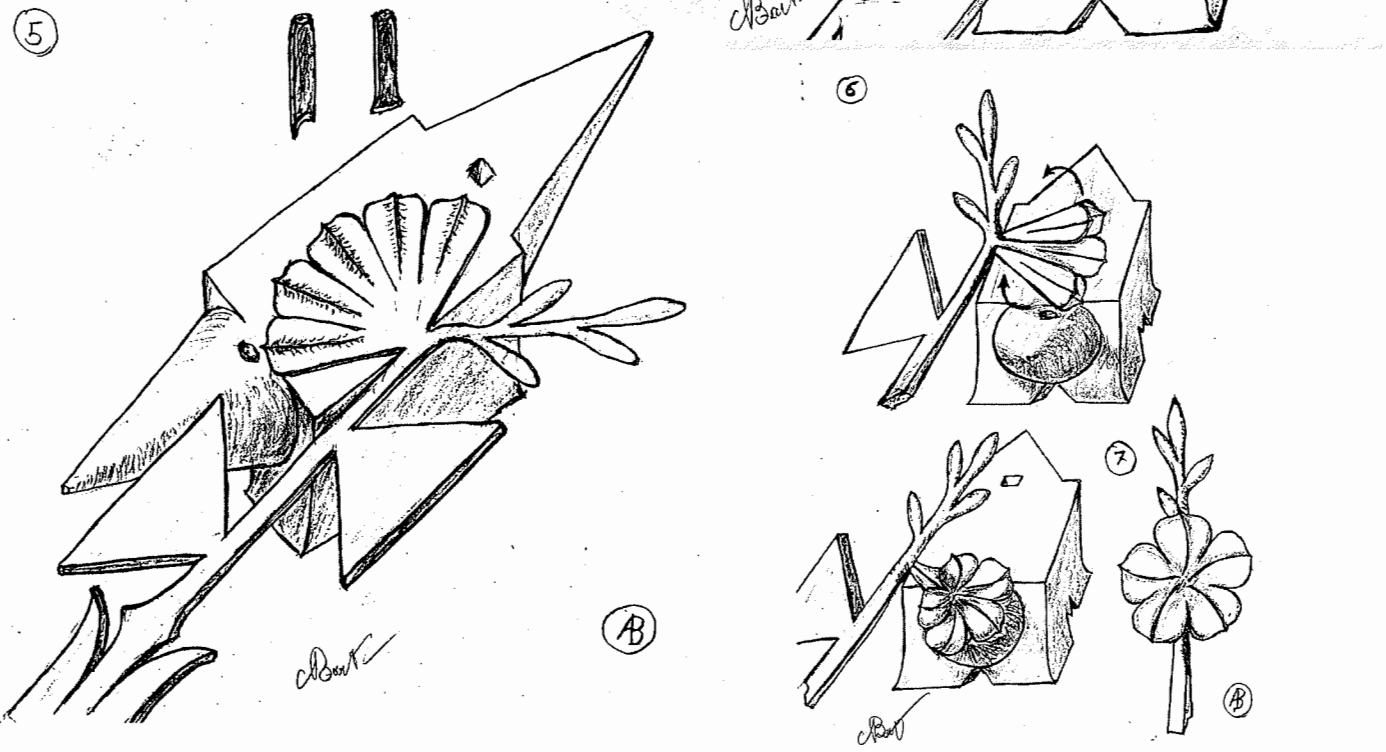
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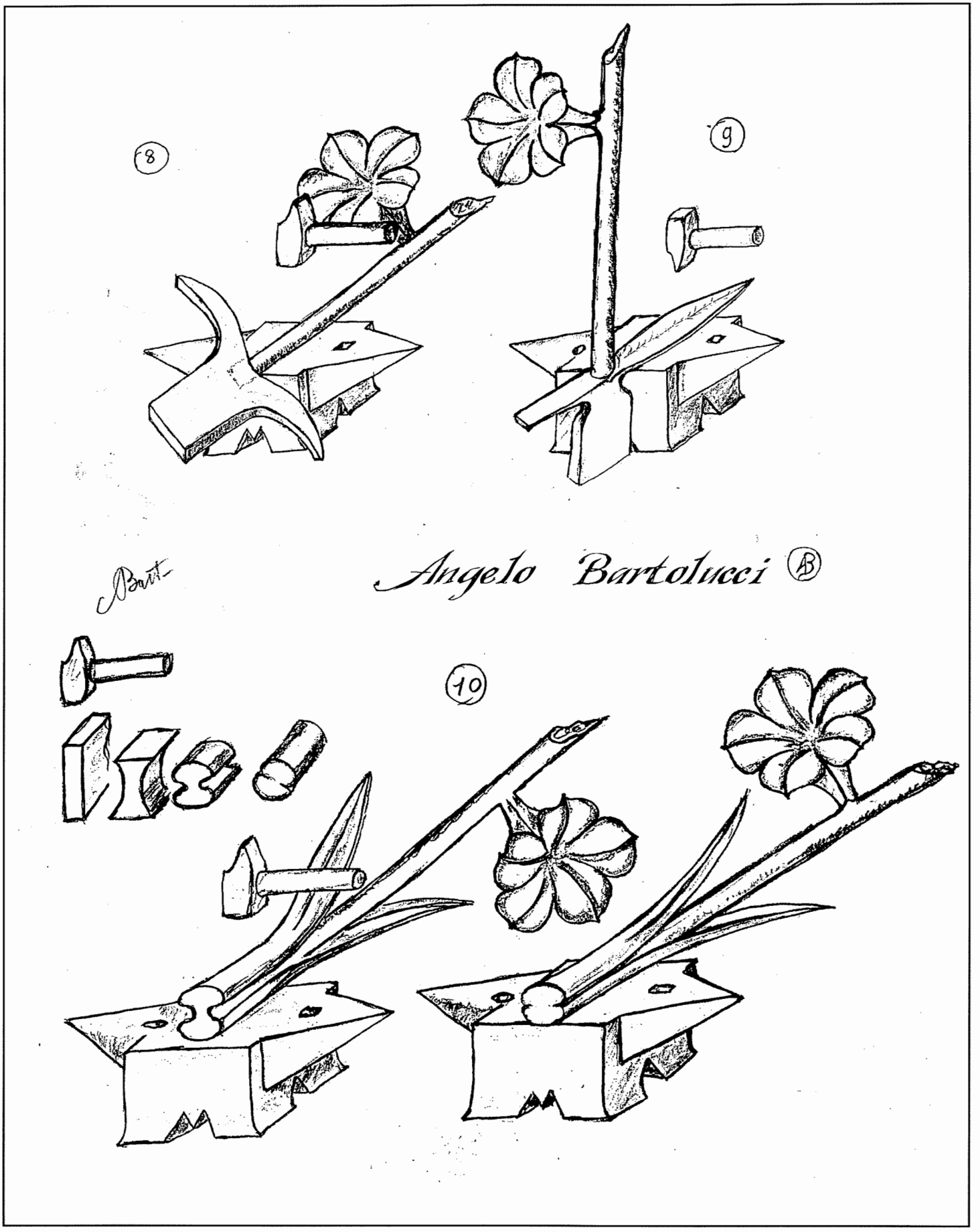
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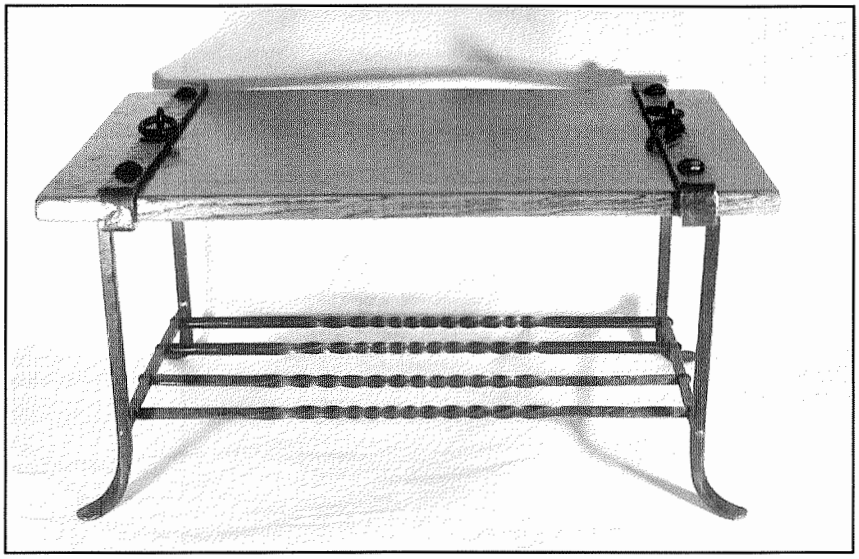
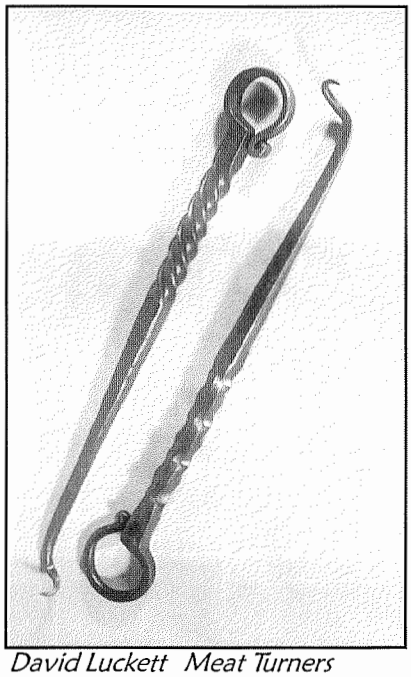
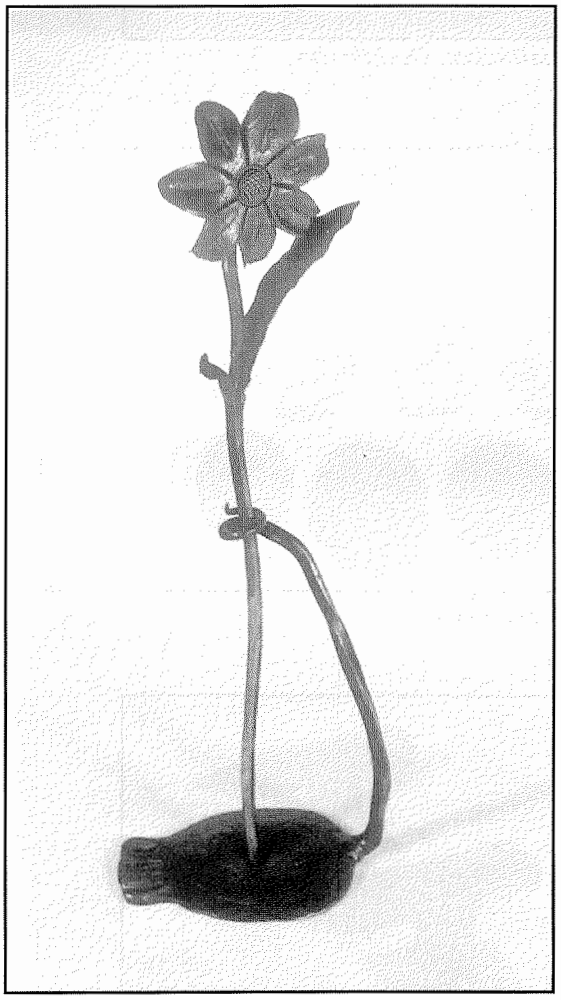


Dean Moxley Oak Table

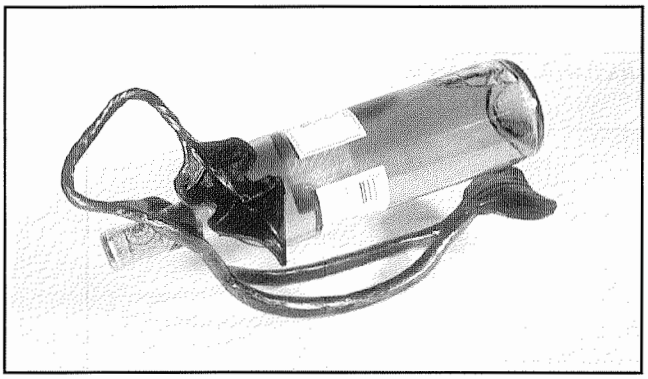
Enumclaw Gallery~



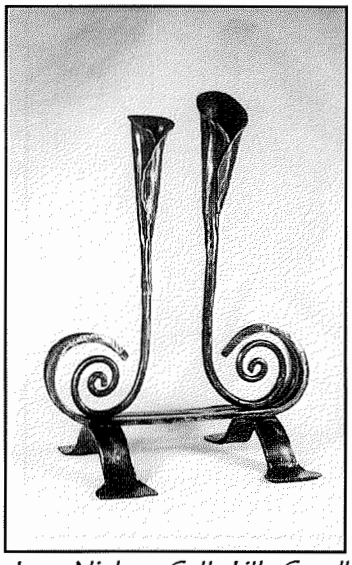
David Luckett Meat Turners



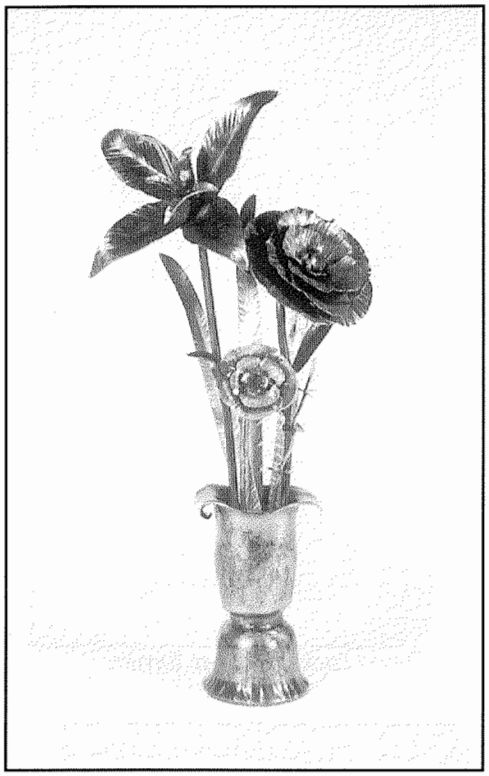
Terry Carson Flower in Stand



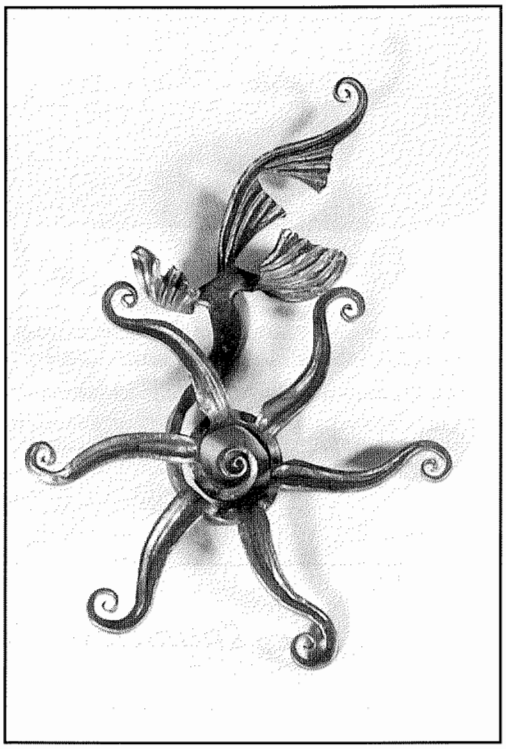
Bob Watts Wine Rack



Jerry Nielsen Calla Lilly Candleholder

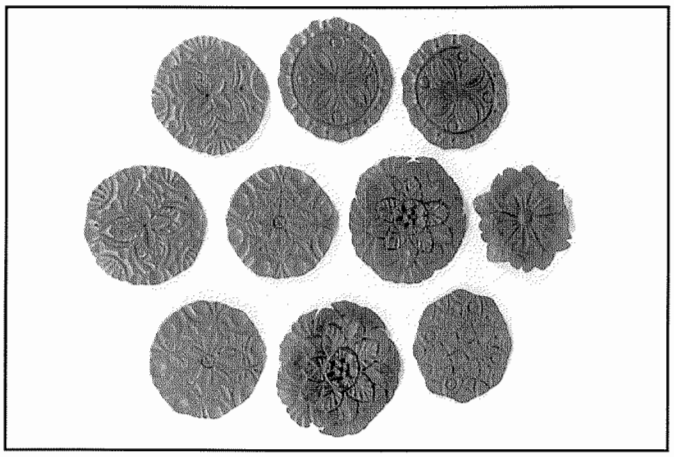


Tom Richards Flowers in Vase

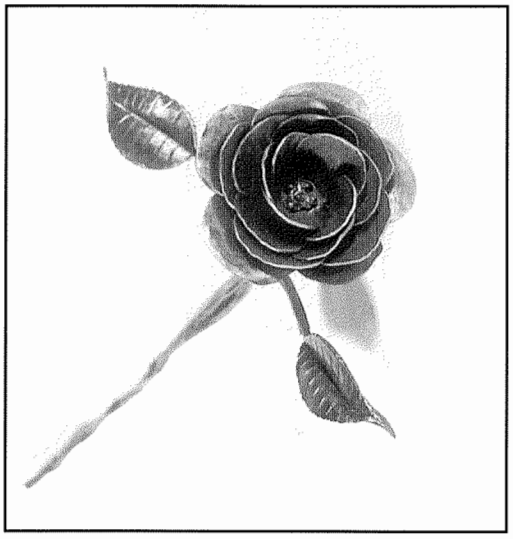


Jim Hatmaker Doddle too

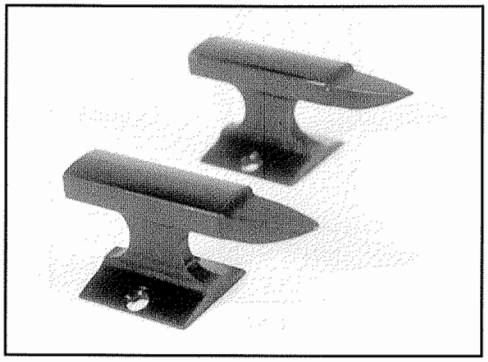
Maria Cristalli Bending Fork



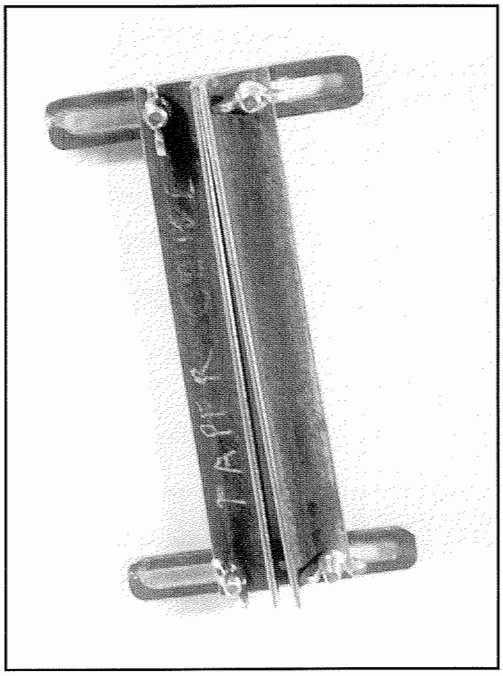
Scott Szloch Mandalas



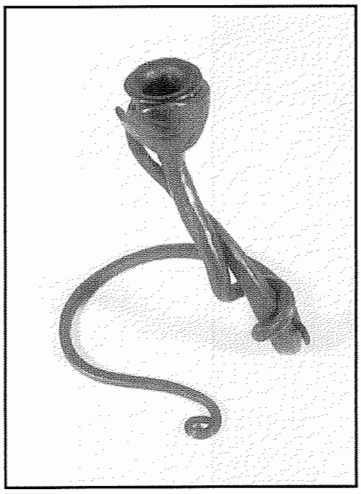
Cyril Swan Rose



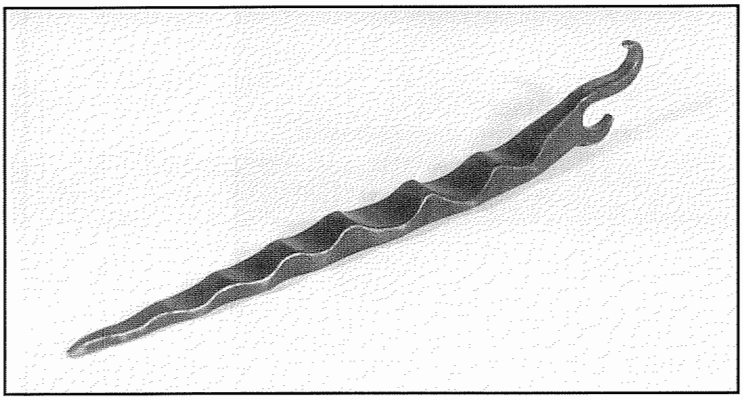
Kent Rudisill Rail Anvils



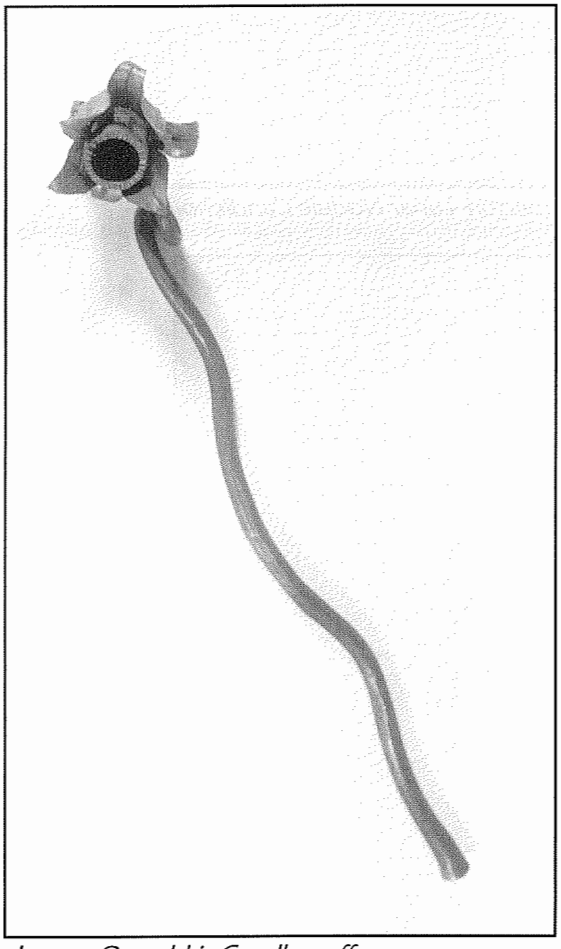
Robert Bowser Taper Gauge



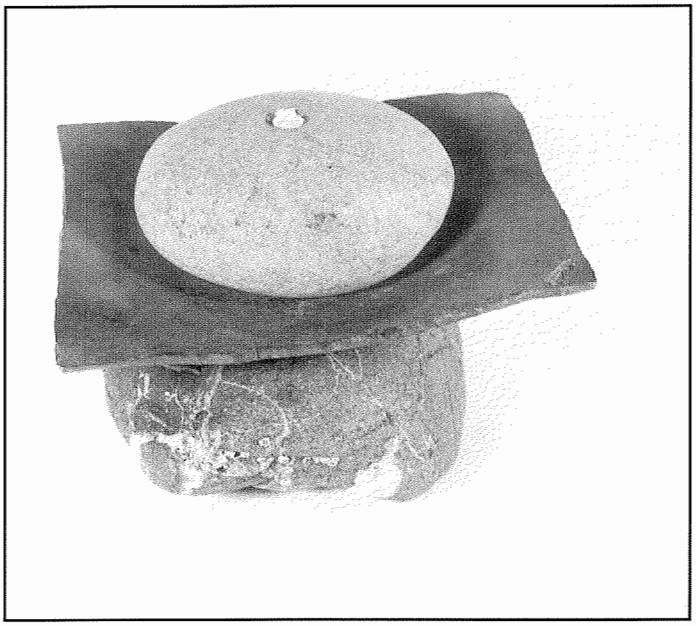
Andy Blakney Candleholder



Mary Gioia Bottle Opener and Eye Gouger



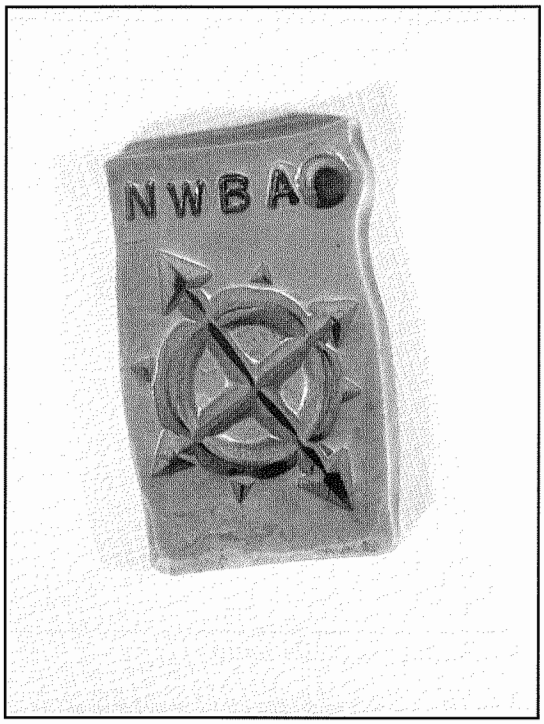
Lauren Osmolski Candlesnuffer



Stair Dickerman Burning Rock Oil Lamp

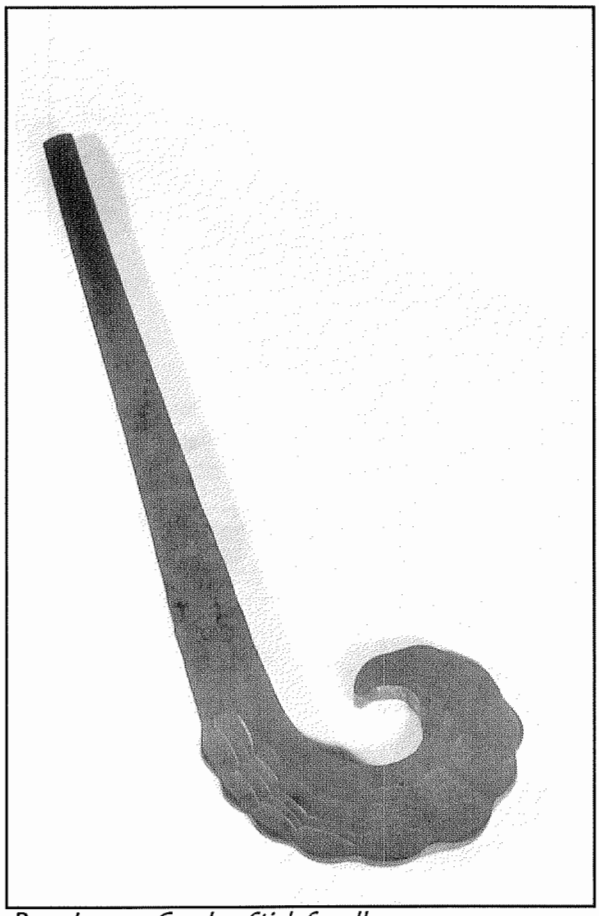
Bill Apple Offset Veining Hammer

Jerry Culberson Lunar Nodule Candleholder

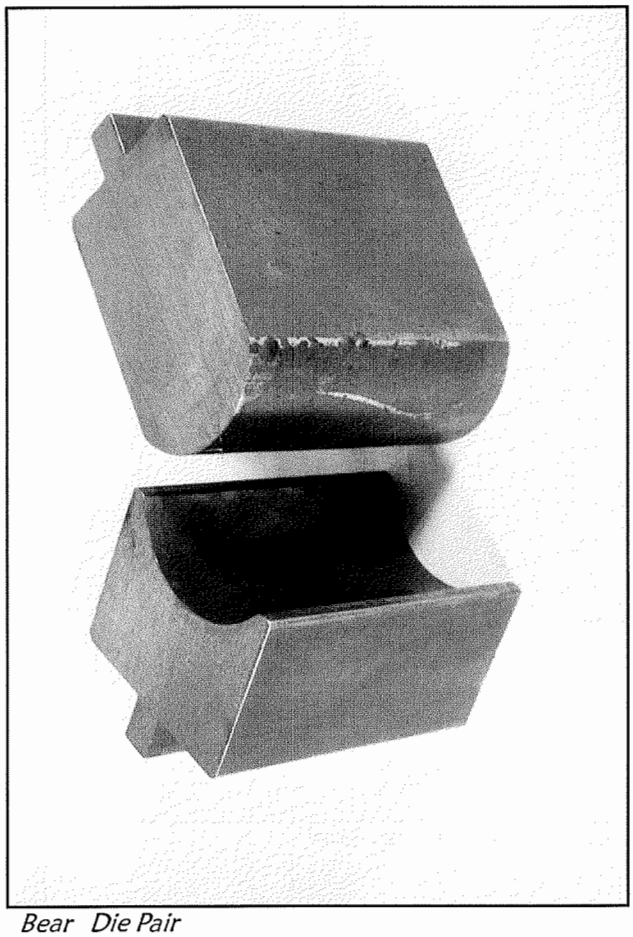


Ethan Fromey Compass Key Fob

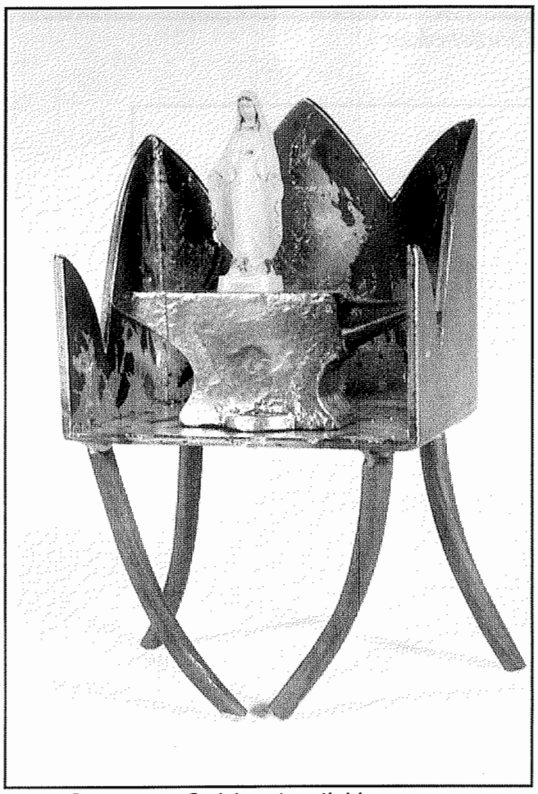
Kris Ketchum Bronze Leaf



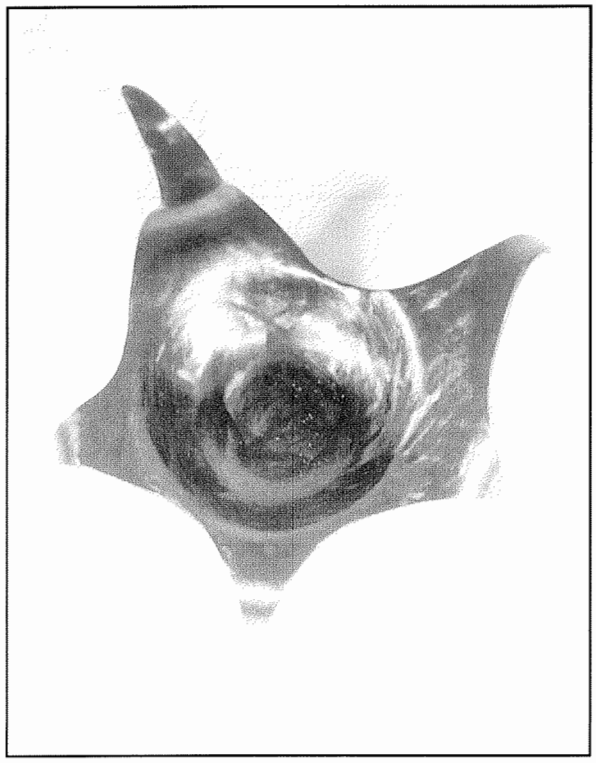
Russ Jaqua Garden Stick Scroll



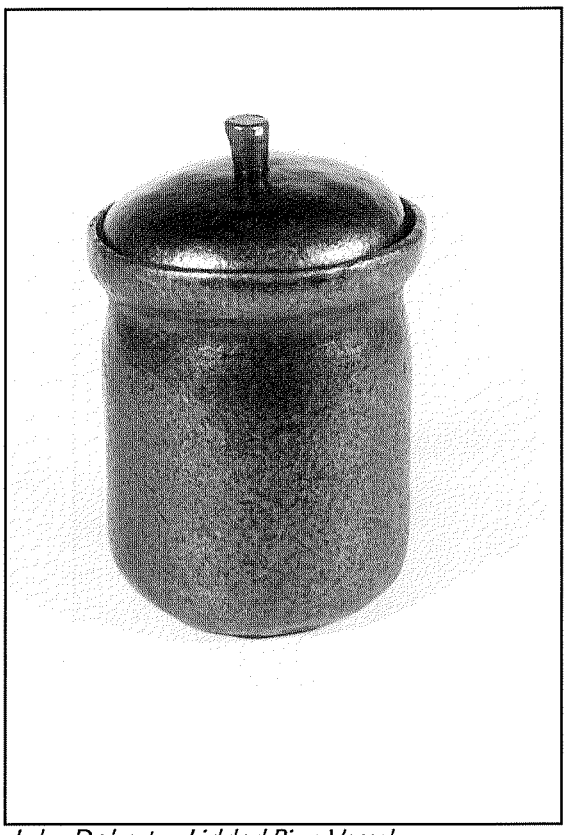
Bear Die Pair



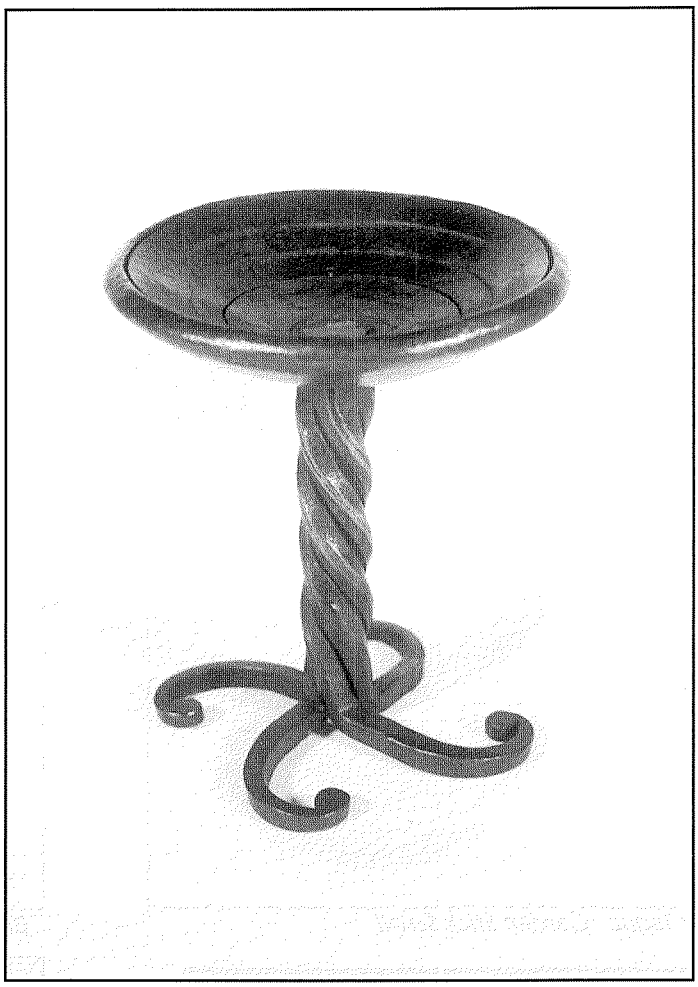
Lisa Geertsen Golden Anvil Altar



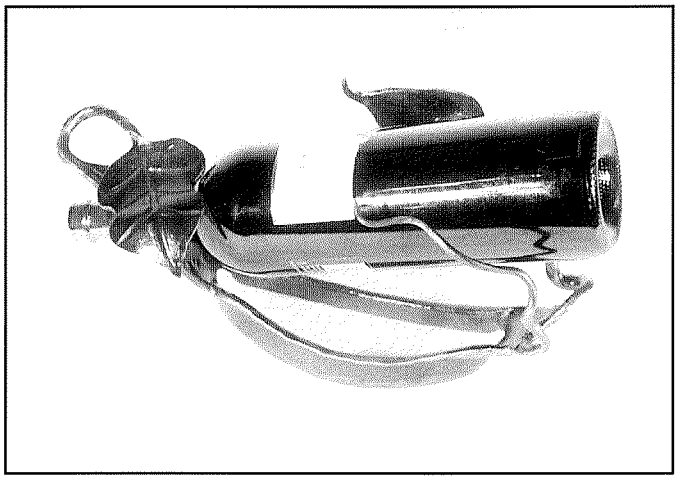
Ken Tice Candy Dish



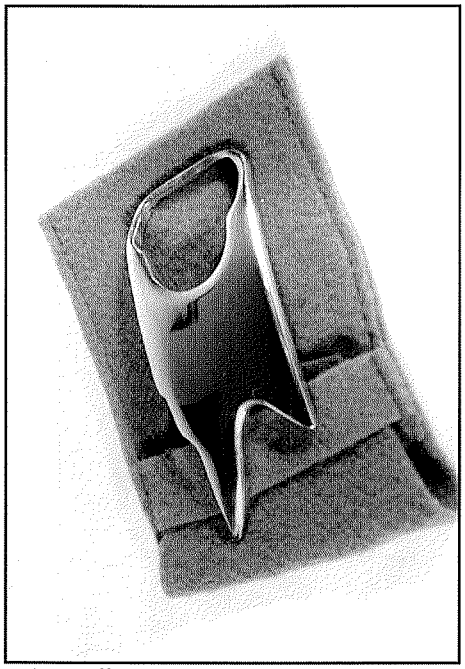
John Doherty Lidded Pipe Vessel



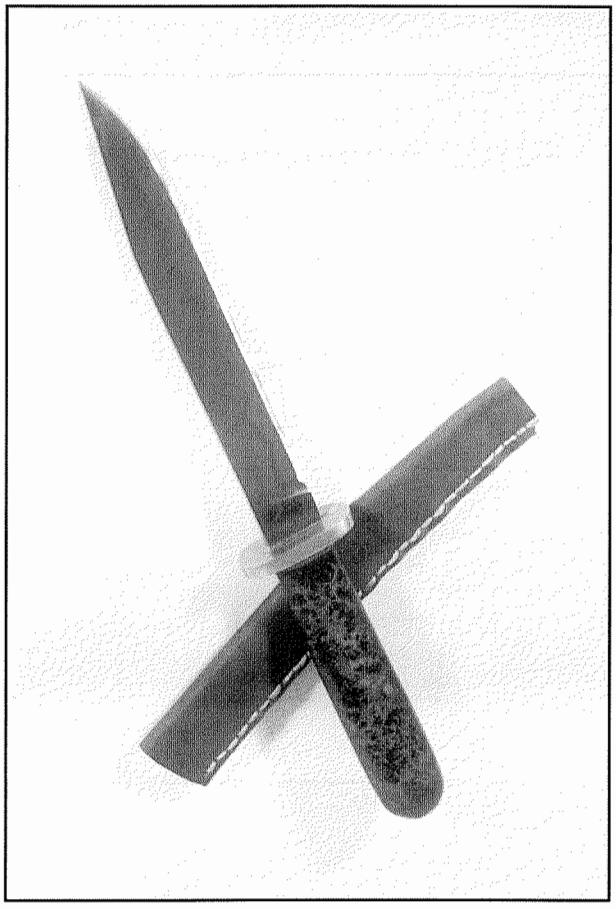
Elijah Burnett Candleholder



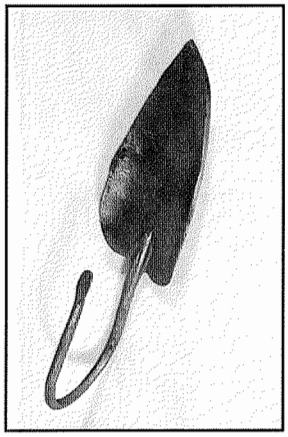
Bob Watts Red Wine Rack



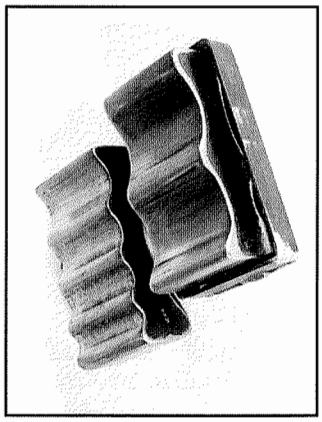
Tim Ball Stainless Steel Belt Buckle



Nick Marcelja Damascus Knife

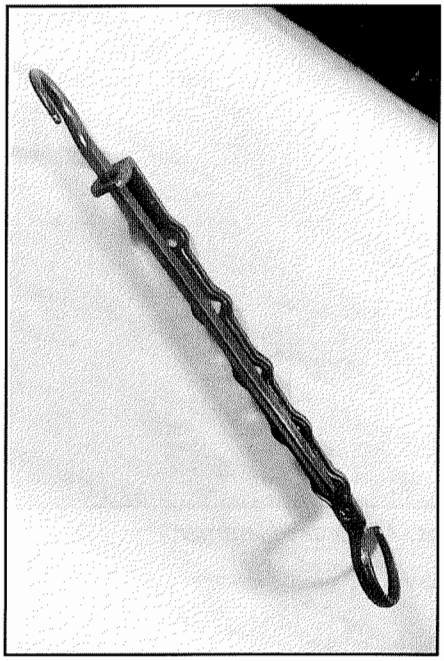


Michael Veeder flour Scoop

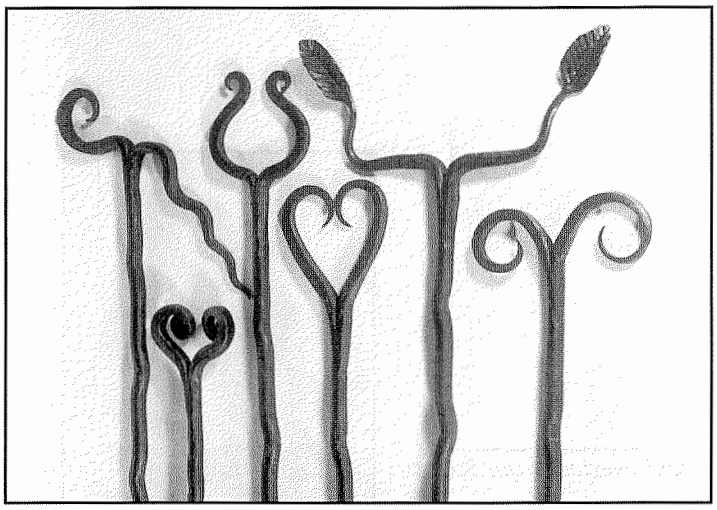


Mark Eschbach Mini Swage Block Kit

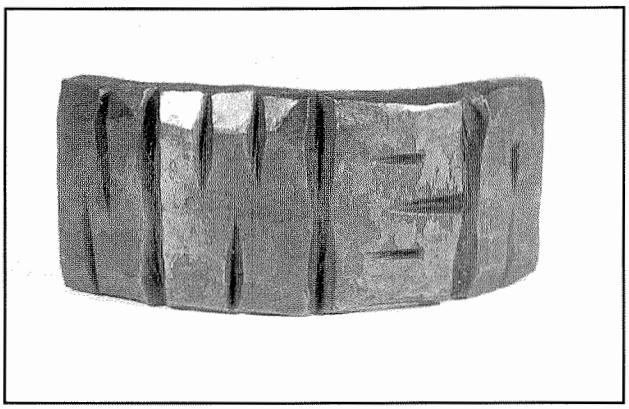
Jeff Holtby Sceptor (stay tuned for the Orb!)



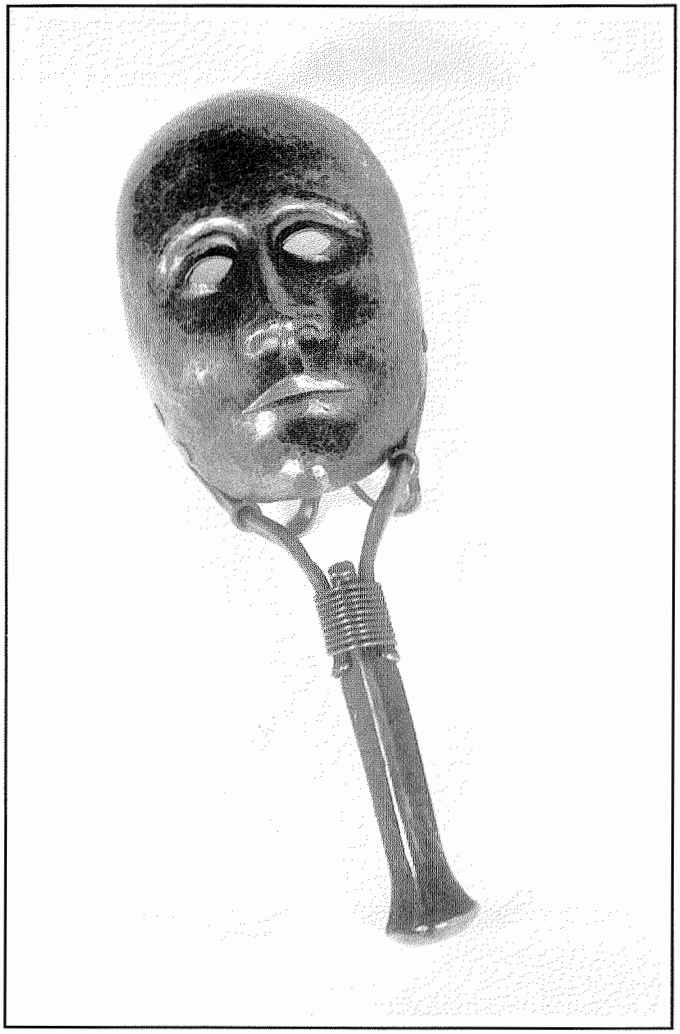
Bob Race Trammel Hook



Skip Kennedy Garden Art



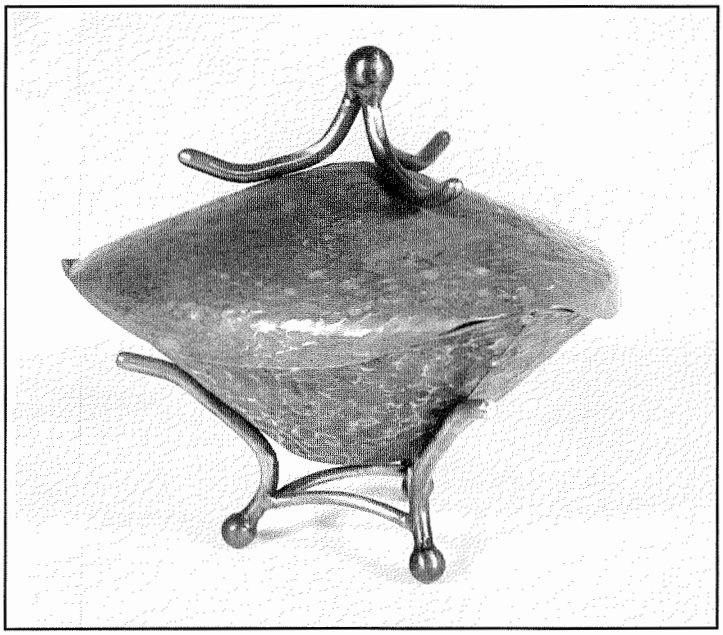
Scott Szloch NWBA



Jeff Holtby Copper Mask

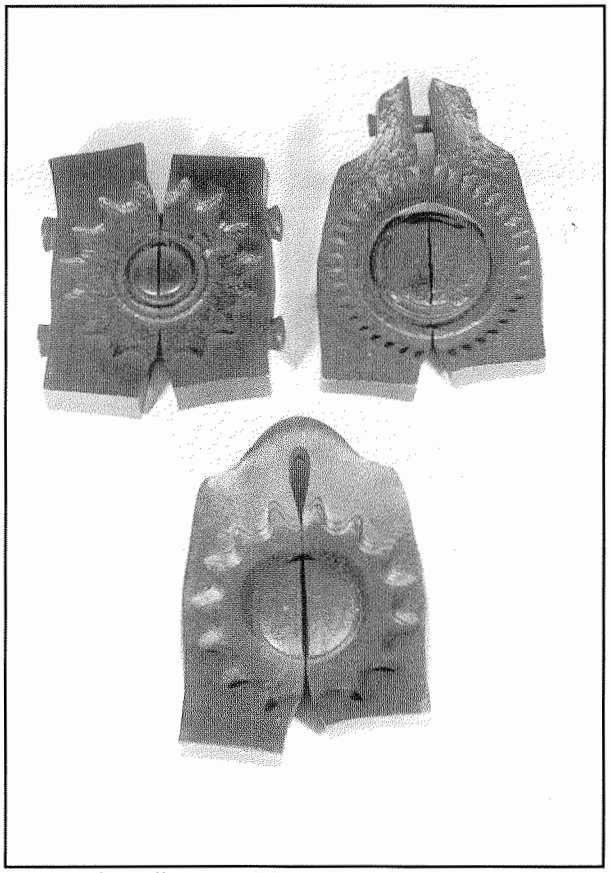
Bert Romans Armorer's Hammer

Michael Veeder Mom's Shovel

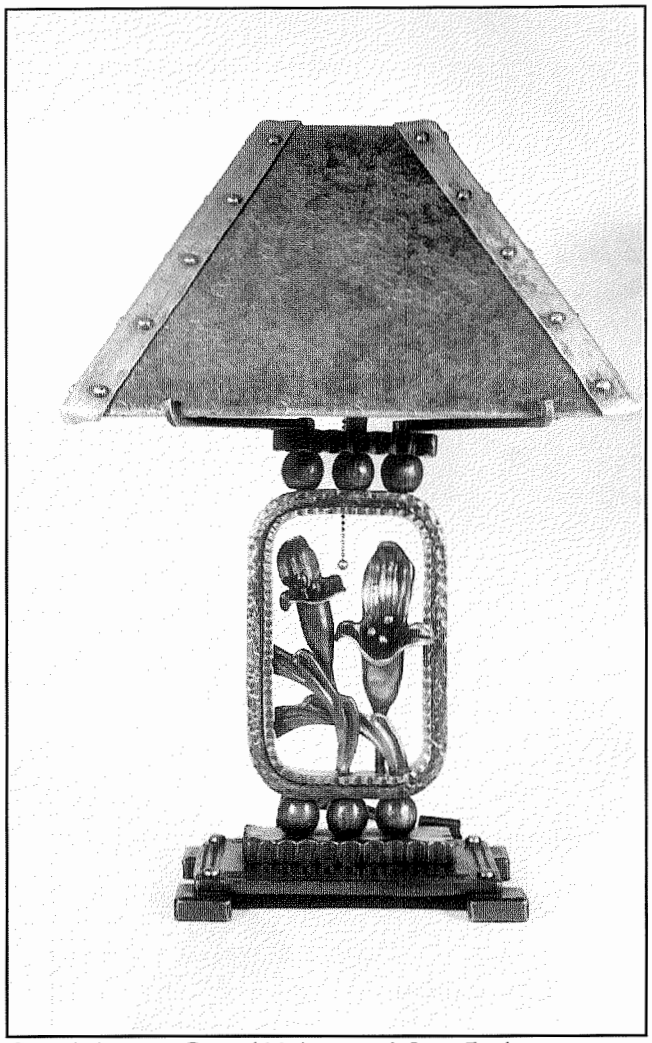


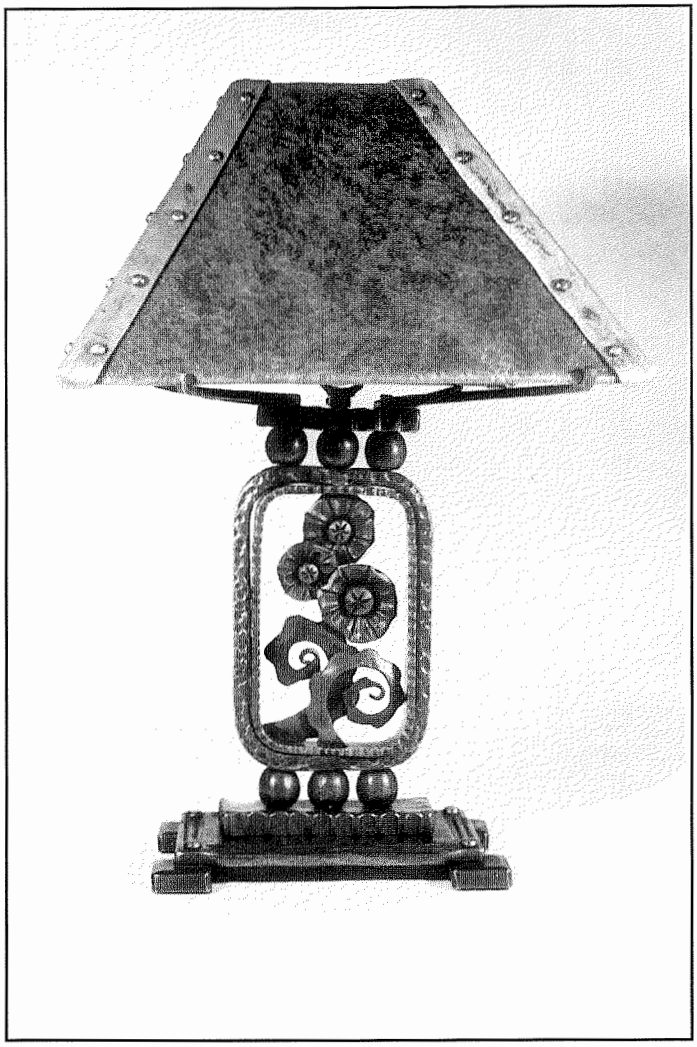
Bert Romans Mongolian Brazier

Terry Carson Flower Garden

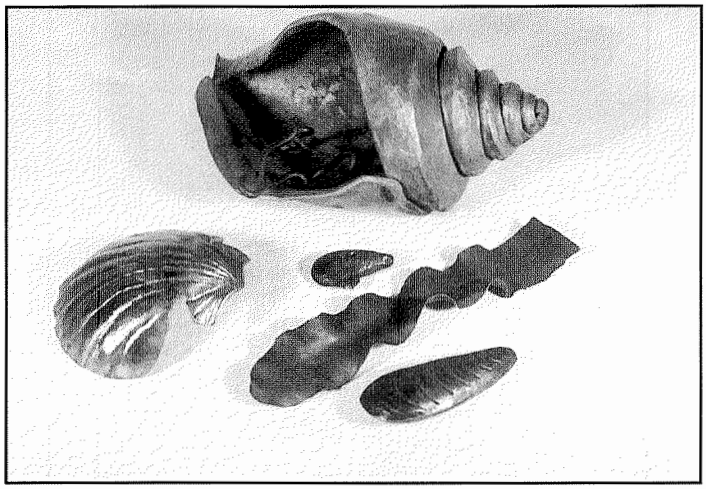


Maria Cristalli Gear Prints

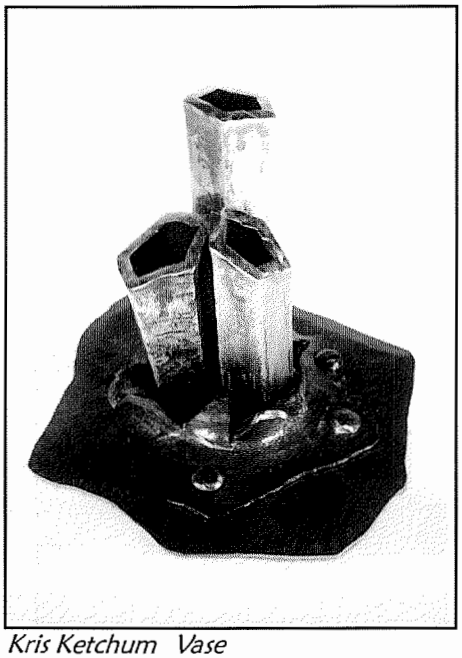




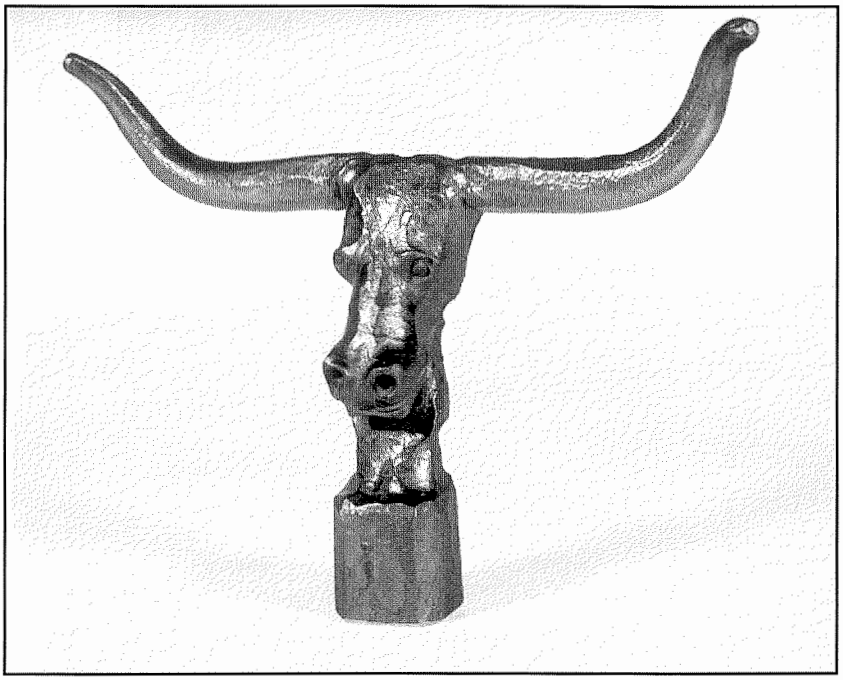
Betsy's Lamps Darryl Nelson and Gary Eagle



Darryl Nelson A Day at the Beach

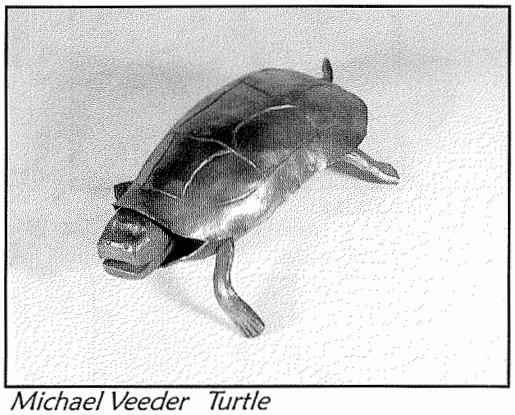


Kris Ketchum Vase



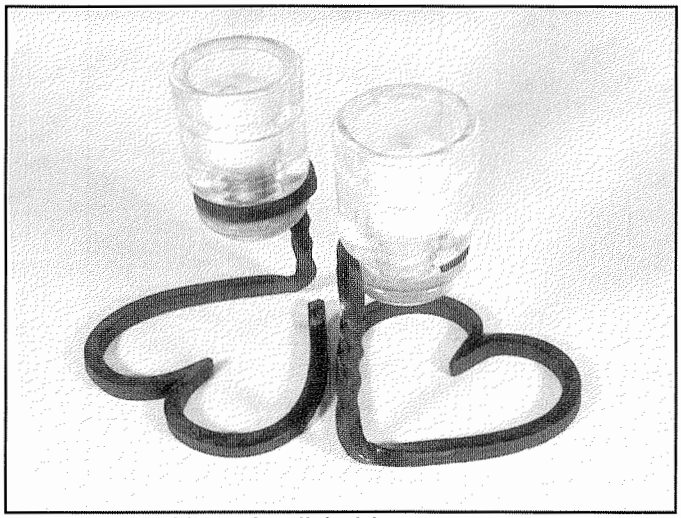
Terry Carson Gear Shift

Gene Chapman Spiral Candlestick

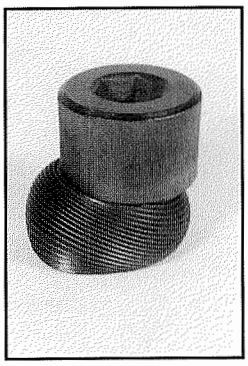


Michael Veeder Turtle

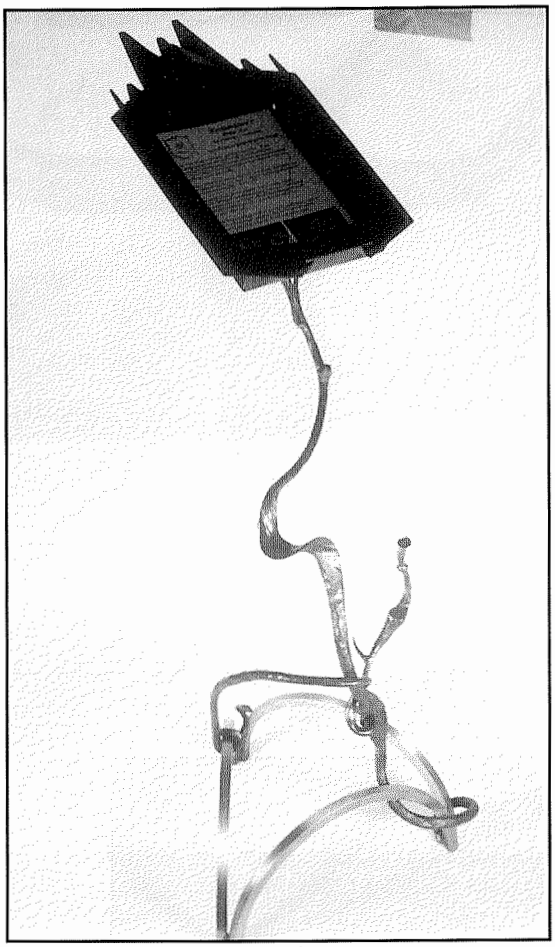
Roger Freeborn Hoof nippers



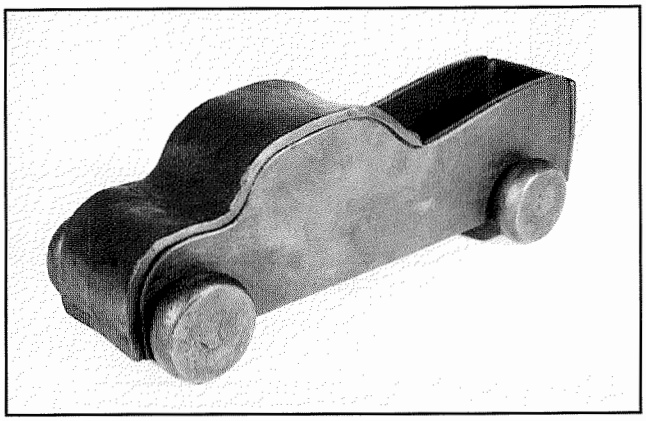
Jesse Brewer Heart Candleholder



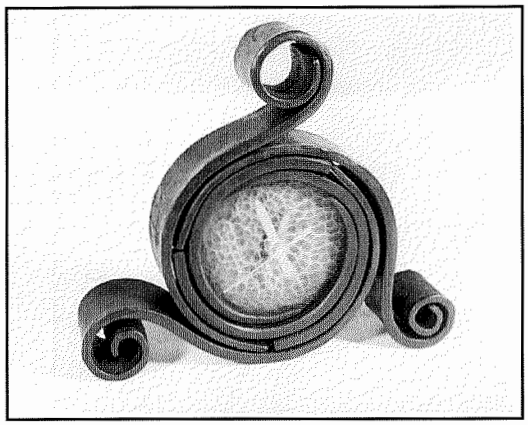
David Thompson Candleholder

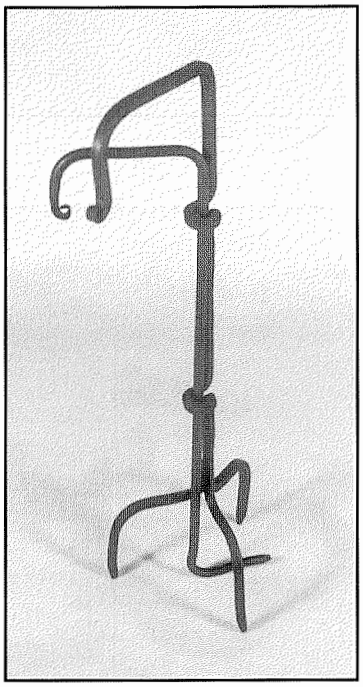


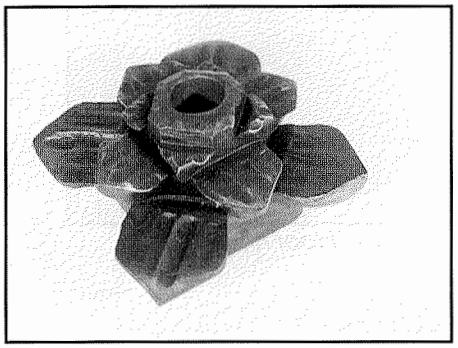
Bert Romans Flier Stand



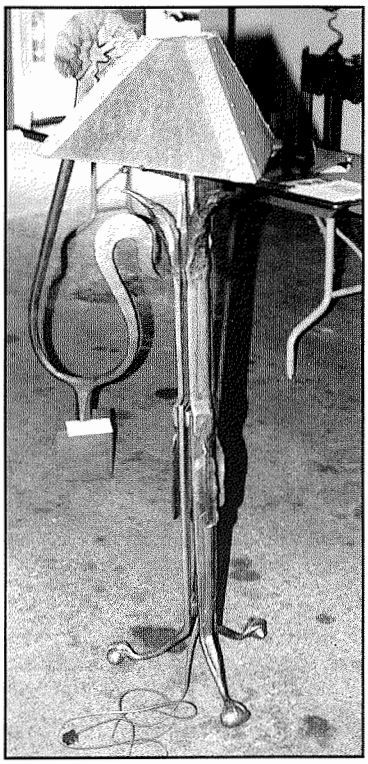
Andy Blakney Car and Clock



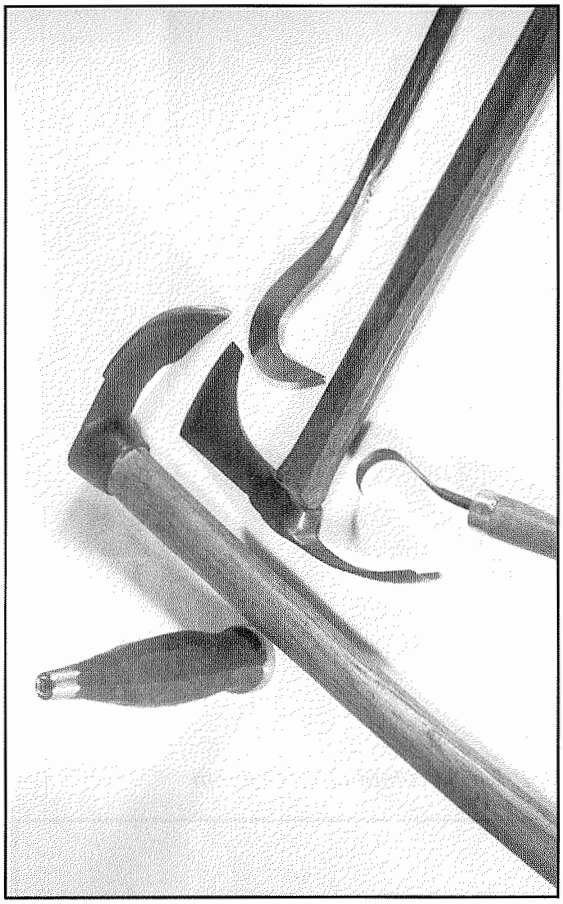




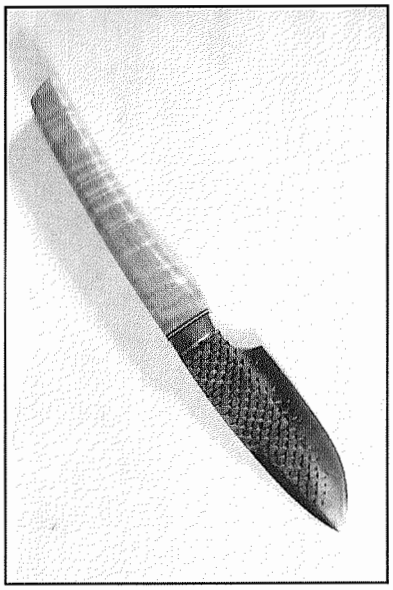
Elijah J. Burnett Rosie O'Donnel Candleholder "cute and fat"



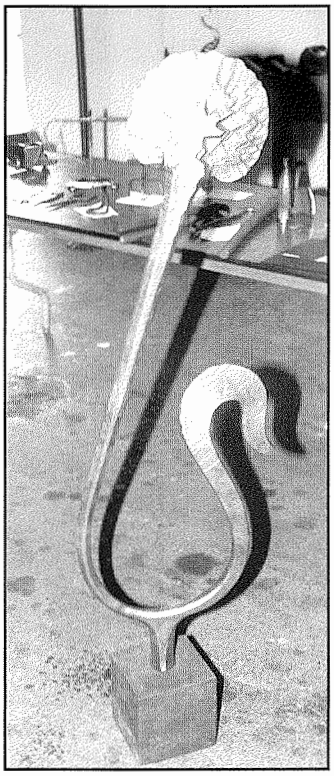
Darryl Nelson Crow Lamp



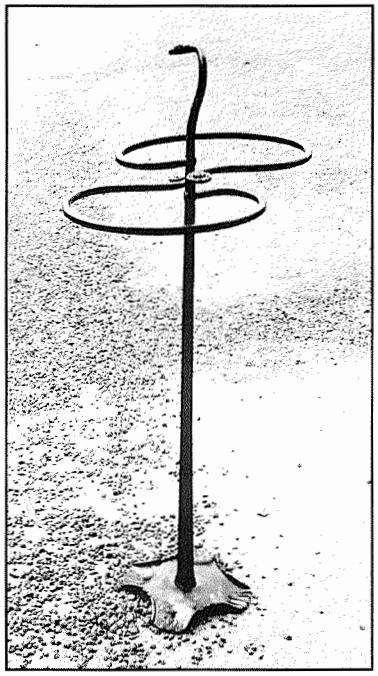
Jon Soini Tools



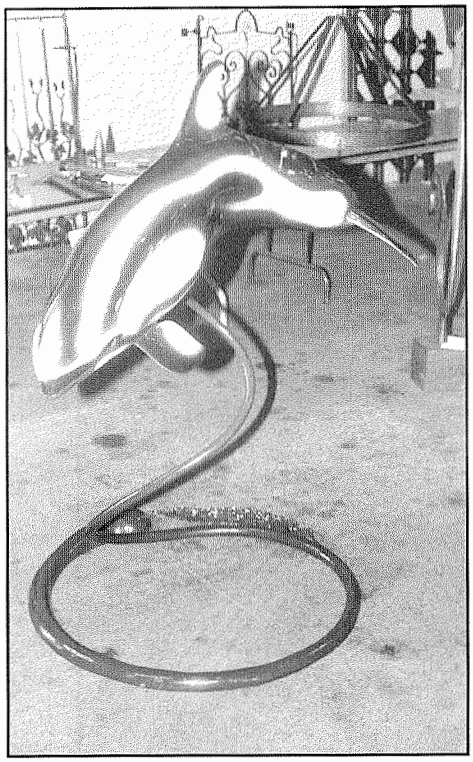
Jamie Ross Horseshoe rasp



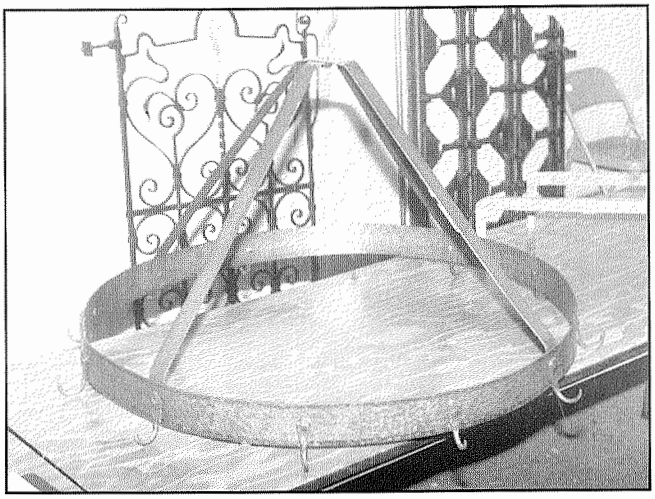
Russell Jaqua Garden Sculpture



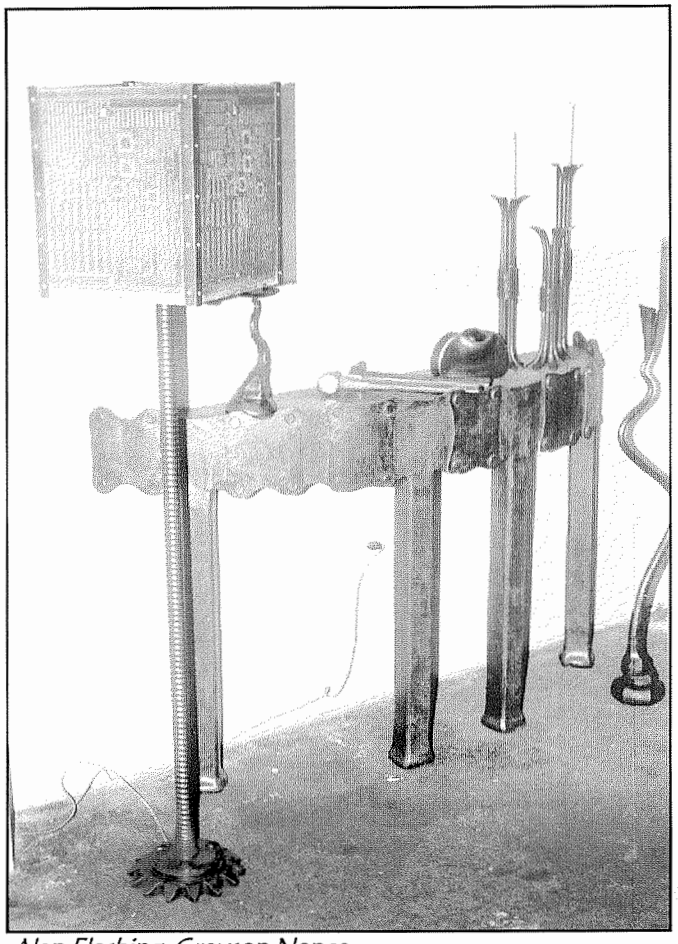
Laura Goemaat Towel rack



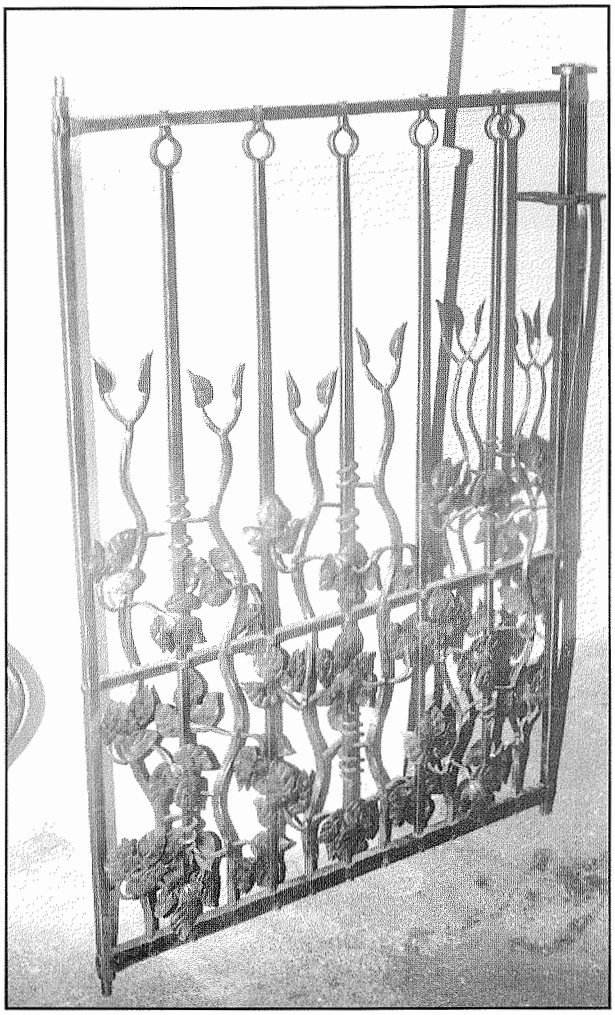
Jon Soini Pacific White-sided Dolphin



Darrell Gehlsen Kitchen Pot Hanger



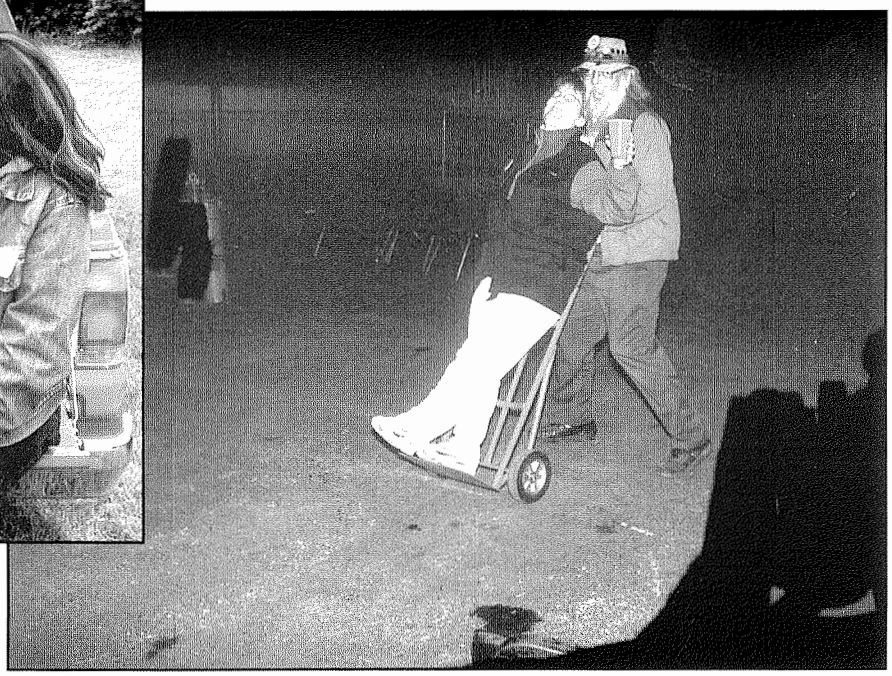
Alan Flashing Grayson Nance



Jon Soini Garden Gate

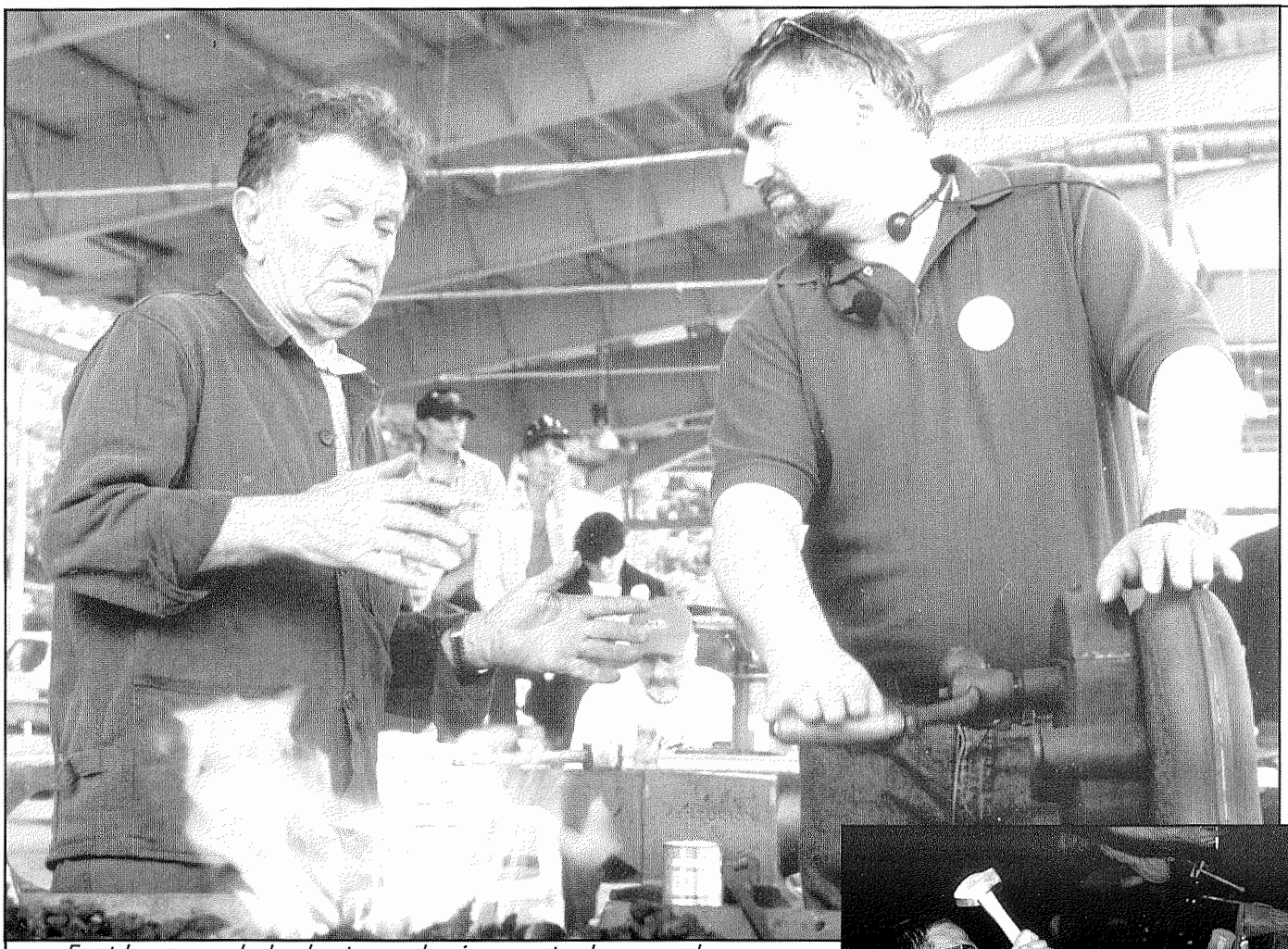
Oh, Give me a Home Where the An-n-n-vils Roam . . .

The Two Mouseketeers!

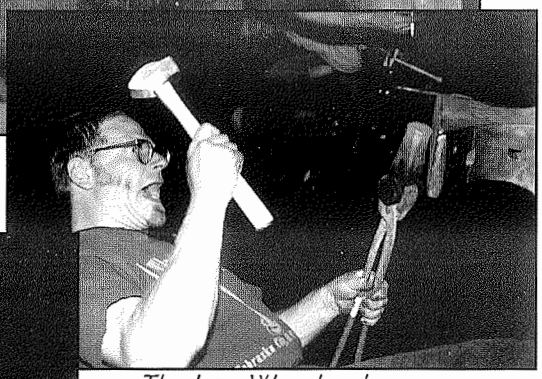


A Black Dog Photo Expose'

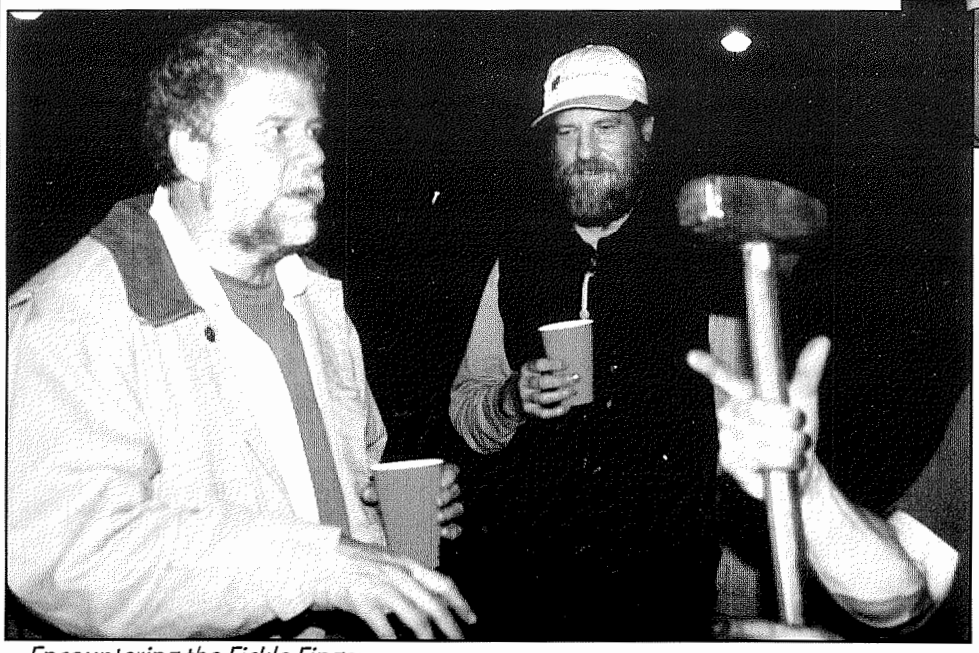
Stealthy Jack Slack wheels his victim off into the night!



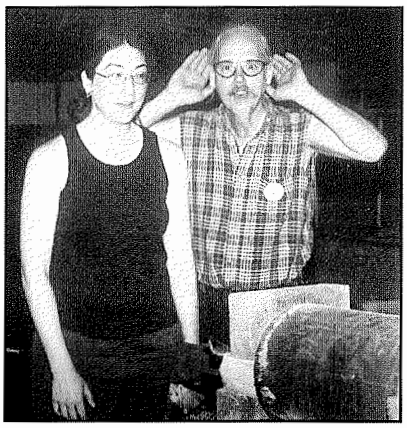
Foot-long . . . wholewheat . . . salami. . . mustard. . .provolone. . .



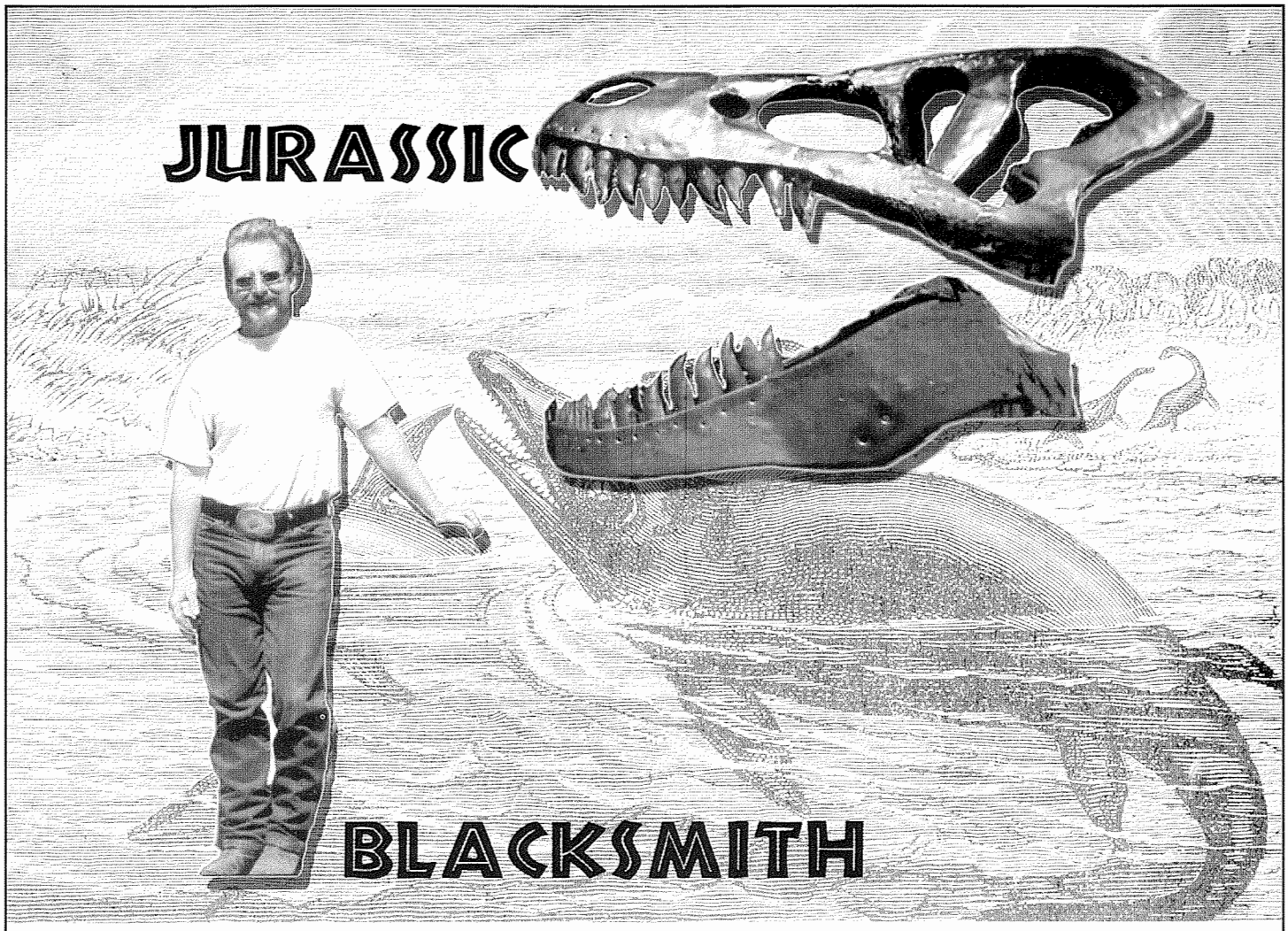
The Iron Woodpecker.



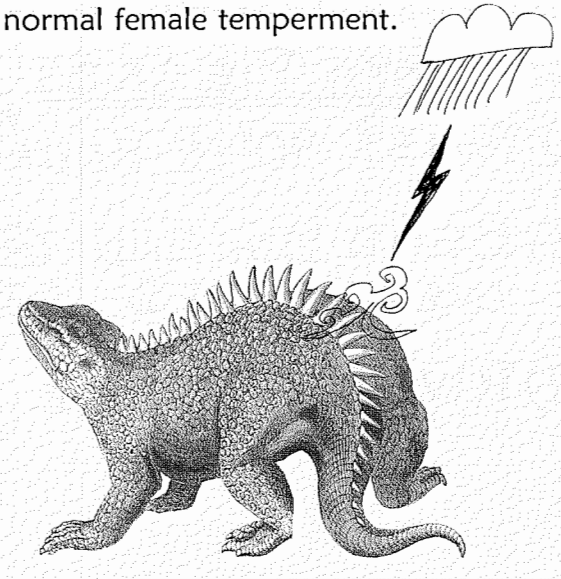
Encountering the Fickle Finger.



All ears.



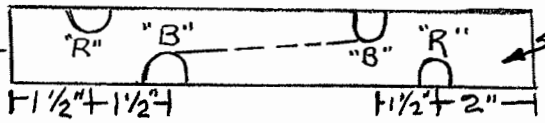
FRANK JACKSON N.W.B.A. member from Clovis, California wards off a ichthyosaurus and a Plesiosaurus just prior to being gobbled up by Tyrannosaurus Rex--which is a fine How-Do-You-Do since Frank forged the T-Rex named Hillary! Hillary is 62 inches long and 40 inches wide, made of 16-gauge mild steel, and has a normal female temperment.



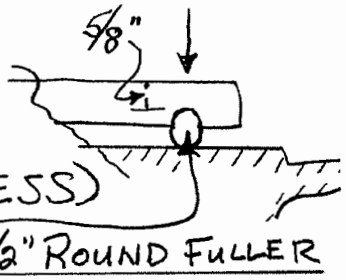
Darryl Nelson's Box Jaw Tongs by Don Kemper

"BASIC" --- 5/16" X 1" X 16" STOCK- B

SETUP---

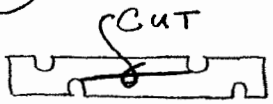


1) FORGE INDENTS @ "R" & "B"
(MAINTAIN 5/8" WIDTH & 5/16" THICKNESS)

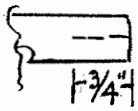


2) ROUND OVER EDGES OF INDENTS "R" ---

3) CHISEL CUT FROM "B" TO "B" -
(DRAW INTO REINS & CHAMFER)



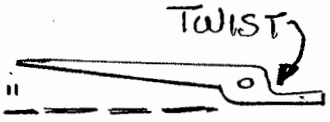
4) SPLIT 3/4" @ BOX END -



5) BEND SPLIT END, FORGE TO 90° ---

6) PUNCH FOR 5/16" RIVET (BOTH PIECES)

7) TWIST 90° @ ROUNDED "R" ---



8) BEND BOX END @ 90° OVER DESIRED STOCK -

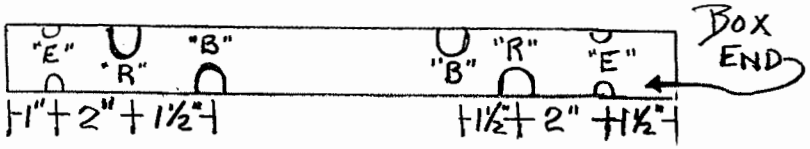
9) RIVET (5/16") & TUNE TO FINISH -

"BOLT" ALTERNATE OF BOX JAW TONGS

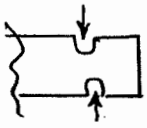
FROM DARRYL NELSON (CONT'D.)

"ALTERNATE" – 5/16" x 1" x 20" STOCK

SETUP-

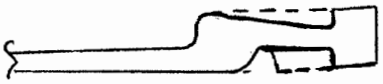


1) FORGE ¼"Ø INDENTS @ ENDS "E"- (BOTH SIDES W/ ¼" SPRING FULLER)



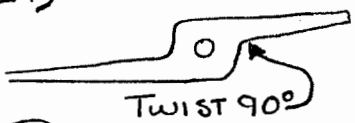
2) COMPLETE STEPS #1, #2 & #3 FOR "BASIC" TONGS (INDENTS "R" & "B"; FORM REINS)

3) FORGE TAPERED ENDS-

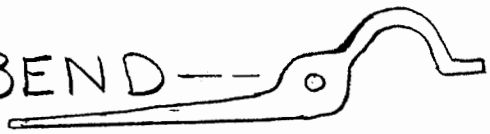


4) COMPLETE STEPS #4, #5 & #6 FOR "BASIC" TONGS-(SPLIT & FORGE BOX END, PUNCH FOR RIVET)

5) REROUND & TWIST 90° @ "R"–



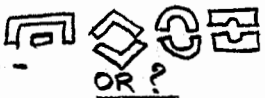
6) FORM "BOLT" BEND–



7) SHAPE JAWS TO FIT STOCK- *

8) RIVET & TUNE-

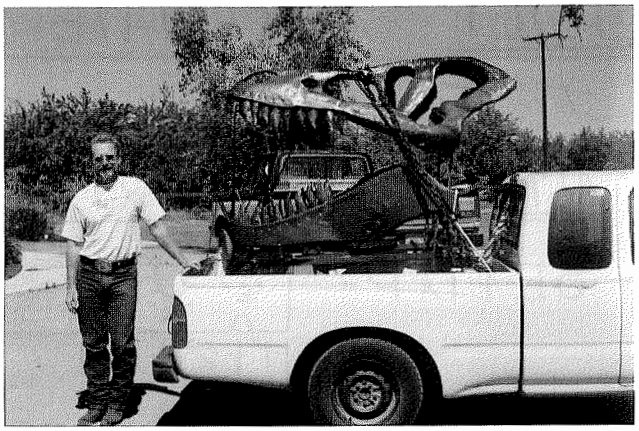
*- SOME JAW SHAPE CHOICES--- OR ?



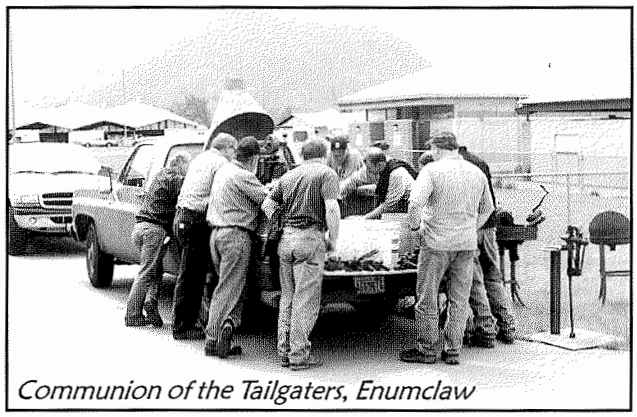
FOR THE NEXT PAIR YOU MAKE!

Ever wonder what the Editor does?

The goal of editing this snapshot was to use the computer to unload the T-Rex from the pick-up, remove the chains, and put it into a proper context that is both visually interesting and presents the art piece at it's best. The results are at Page 35. When photographing your artwork for presentation in a portfolio the same rules of aesthetics apply. The background e.g. the telephone pole and pick-up, detract from the focus on the artwork. This photo also illustrates the fact that the computer is a critical tool that must be used in addition to the camera to produce a truly artistic portfolio that gives due focus on the piece. In the case of T-Rex it would have been almost impossible to photograph such a large piece in a studio setting. The computer came to the rescue. The resultant graphic can be used repeatedly i.e. as a logo, poster, tee-shirt, etc.--all of which is part of effective marketing i.e. repeated presentation of a piece in different contexts. View your ironwork the same way that GM and other car makers view theirs. Their iron (cars) are constantly presented in different interesting and appealing poses. Generally, blacksmiths produce fabulous ironwork--and then display it in a dismal portfolio! The idea is to display a piece so that it captures the imagination! Put T-Rex into a prehistoric swamp, a Colonial candlestick into a Colonial background. Don't be complacent with just slipping unedited, badly lighted snapshots into plastic jackets in a notebook. Make your T-Rex look like she *really is* going to eat the guy who made her. Be selective. One great, finely edited photo in a portfolio is worth a thousand poor snapshots. The T-Rex photographer could have taken a hundred shots but they still would have shown the piece chained to a truck with a telephone pole in the background. Less really can be more! After expending all of those hours producing your artwork take the extra effort to display it properly in your portfolio. Don't stop until you are completely satisfied that you have maximized it's artistic presentation.



The original unedited snapshot of T-Rex!



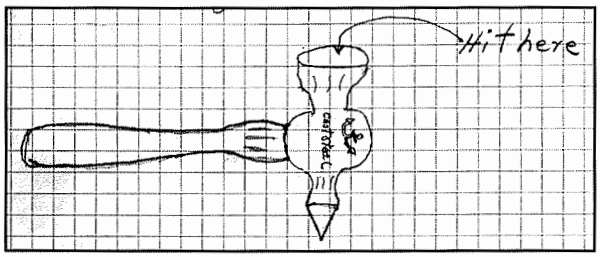
Communion of the Tailgaters, Enumclaw

HOT TIPS by Mojave John

Countersink

Dig out a small to medium ball-peen hammer head. Grind the small peen end to a conical shape.

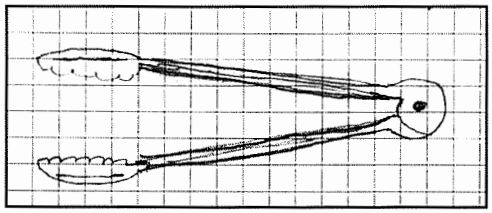
Works much better than bit cutters!



Slag Pickers

Find a pair of metal spring-loaded long salad tongs.

Works better than your fingers!



David Thompson ~ *The complete text of the Winter 2001 article . . .*

I am a self-taught artist. My education started as a quiet kid growing up on the family farm, observing nature. This education is continuing today; I enjoy looking at art books but rarely read them. I believe that art is a purely visual experience. To read a critique about a work of art is generally confusing to the personal experience.

Art is a dialog between the artist's soul and his or her chosen medium. My medium is metal, especially steel. I love steel for its strength, versatility, economy and plasticity. Learning to forge and work the material as a plastic is important to gain a full understanding of the material. That is what brought me to blacksmithing.

I always have had an interest in metal, growing up on a farm with an abundance of broken agricultural implement junk. My first sculpture was of agricultural implement parts. I took all the metal shop and drawing classes I could get in junior high and high school. After high school I became a sheet metal apprentice. I just couldn't get excited about 26-gauge galvanized sheet metal and Pittsburgh seams. The pattern-layout and cold-framing processes of sheet metal work has been invaluable to working the material in all its applications.

While serving my time as a sheet metal apprentice, I fed my creative side at home in my garage making welded-wire sculpture and artsy candlesticks, the stuff that was popular back in the late Sixties. I was selling this work through galleries and the newly-formed saturday market in my hometown. With the encouragement of people actually buying my work, I said "Hey, I can do this!" I stayed with sheet metal until I received my journeyman papers, quit the next day and started an ornamental iron shop in 1970.

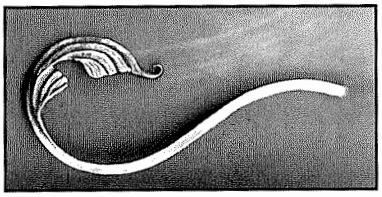
I enjoyed being independent and did well doing iron work. I always stresses unique design and quality craftsmanship. For the most part, this early work was cold-formed and fabricated. I was good at fabricating and making things fit but always felt limited by fabrication methods.

In 1979, I received an invitation from Clatsop Community College to attend a metalworking conference at Camp Rilea on the Oregon Coast. N.W.B.A. was founded by the people that attended that workshop. One of the demonstrators was a blacksmith, Frances Whitaker. I didn't know anything about blacksmithing at that time, hey, those guys shoe horses, right? But I thought I would check it out. I was totally amazed, here was this guy taking the same stuff that I had been cutting and welding, heating it up and hammering it into any form desired. *Wow, I was hooked!* I came home, went out to the farm, pulled the forge, anvil and post vise out of the back of the barn, bought Jack Andrew's *Edge of the Anvil* book and went to work. *My whole attitude about metal work was changed!*

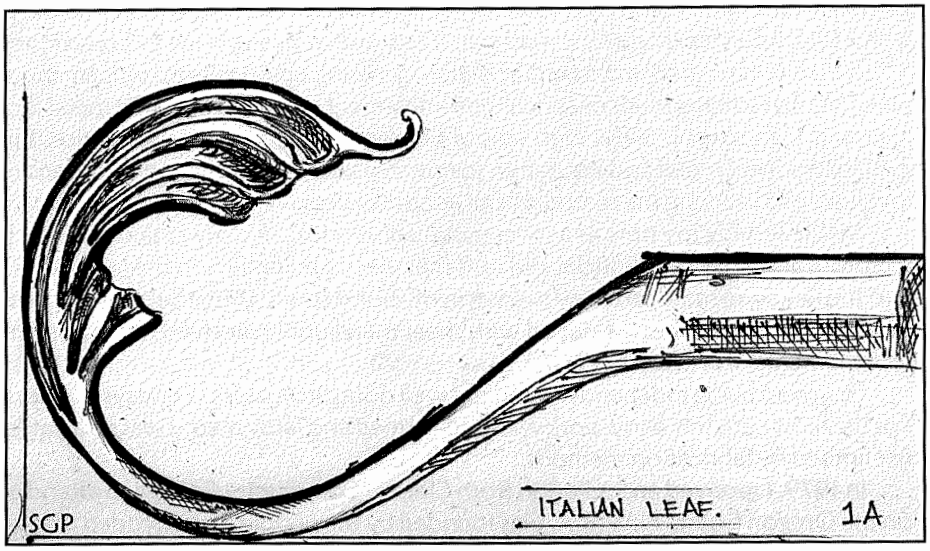
I don't call myself a blacksmith; I use smithing as a tool, a means to the end. I am interested in using the best method to achieve the desired results, whether it be ancient or modern metal working techniques.

Ultimately the line is everything. A lot of my design and work is a graceful organic form, the long taper, the relationship of one form to another through positive and negative space, the way light plays oft an edge. This relationship changes three-dimensionally, yet still holds its balance in space.

A good piece of art possesses a quiet strength, the artist working directly with the material needs to be sensitive to the voice of the material. I have always found it much easier and more effective to work with the material than against it. The forging process is so much fun it is easy to literally pound the life out of the material and work it to death. *One of the hardest things to learn is when to stop!*

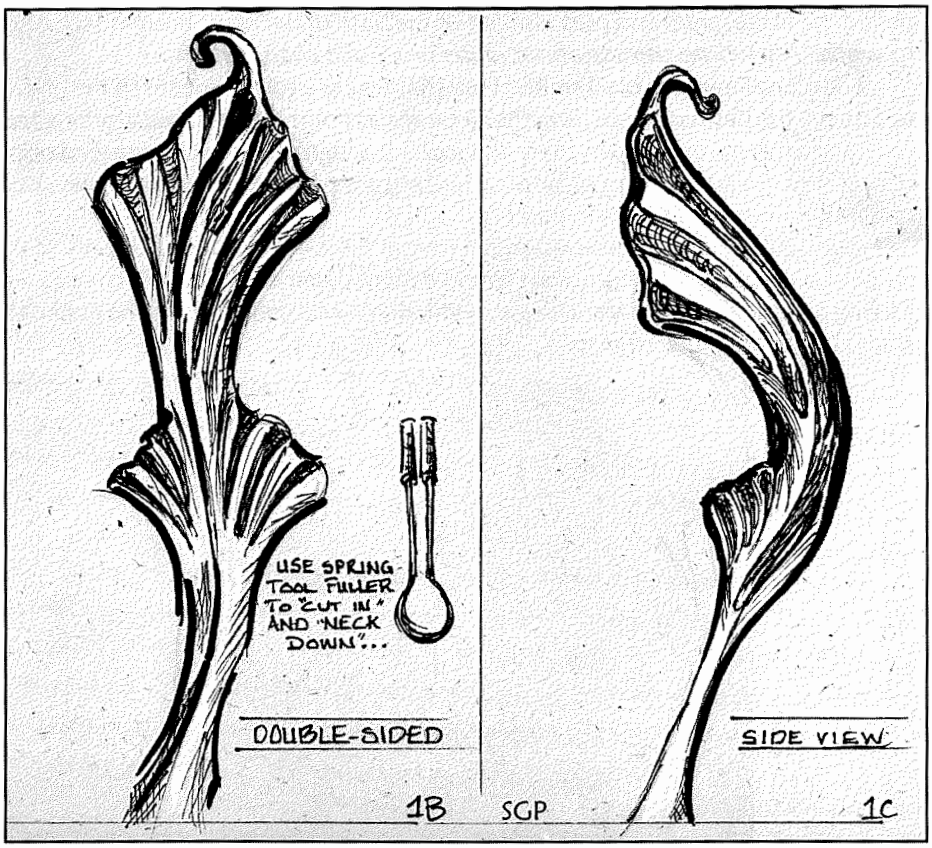


The Art of the Italian Leaf

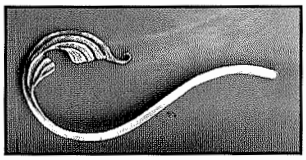


This workshop teaches a method for forging a simple Italian leaf. Stock size, layout of fullered lines, fuller width, and number of "petals" can all be changed as desired. Try this version and then try as many different variations as you desire. A general rule of thumb to follow: A narrower fuller will result in a more delicate, detailed looking leaf.

This leaf is abstract rather than realistic in style but will benefit from proper proportioning, just as if it existed in nature (a good rule of thumb for everything you forge). In other words, when deciding how long to make the "petals", relate them to one another proportionately. For this leaf, the second "petal" should be approximately 1/3 the length of the first. Experiment, your eye can usually tell when things are in proportion. If they are disproportionate, they will appear awkward rather than natural. Don't fret if you don't get it right the first time . . . there are many different skills to master when forging this leaf. Oh yes, and the most important rule of thumb: *Have Fun!* It is always easier to learn when you are enjoying yourself.



SARAH GRACE PARKER



Glossary of Tools and Terms~

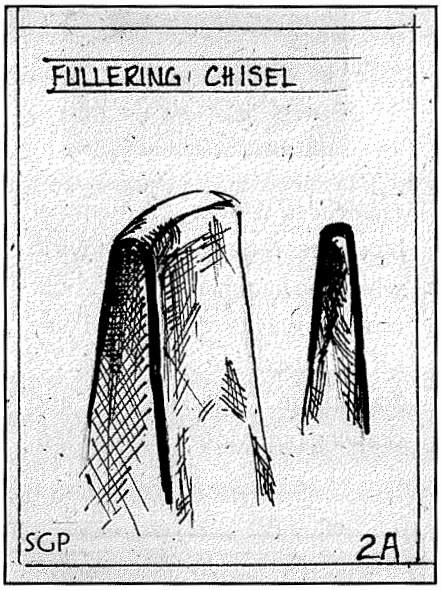
Fuller: A tool used for grooving and spreading material.

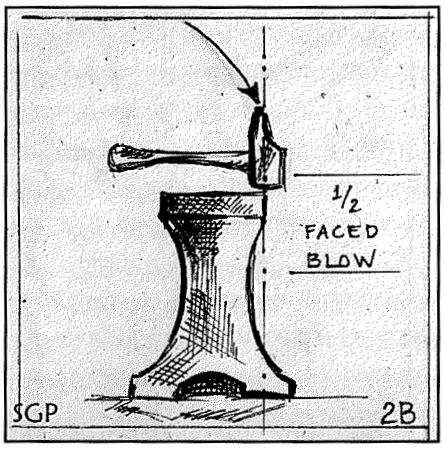
Fullering chisel: A blunt-tipped, radius-edged hand-held fuller used in this case to groove a line of varying width/depth into the steel (using a method called chasing). (See drawing 2A)

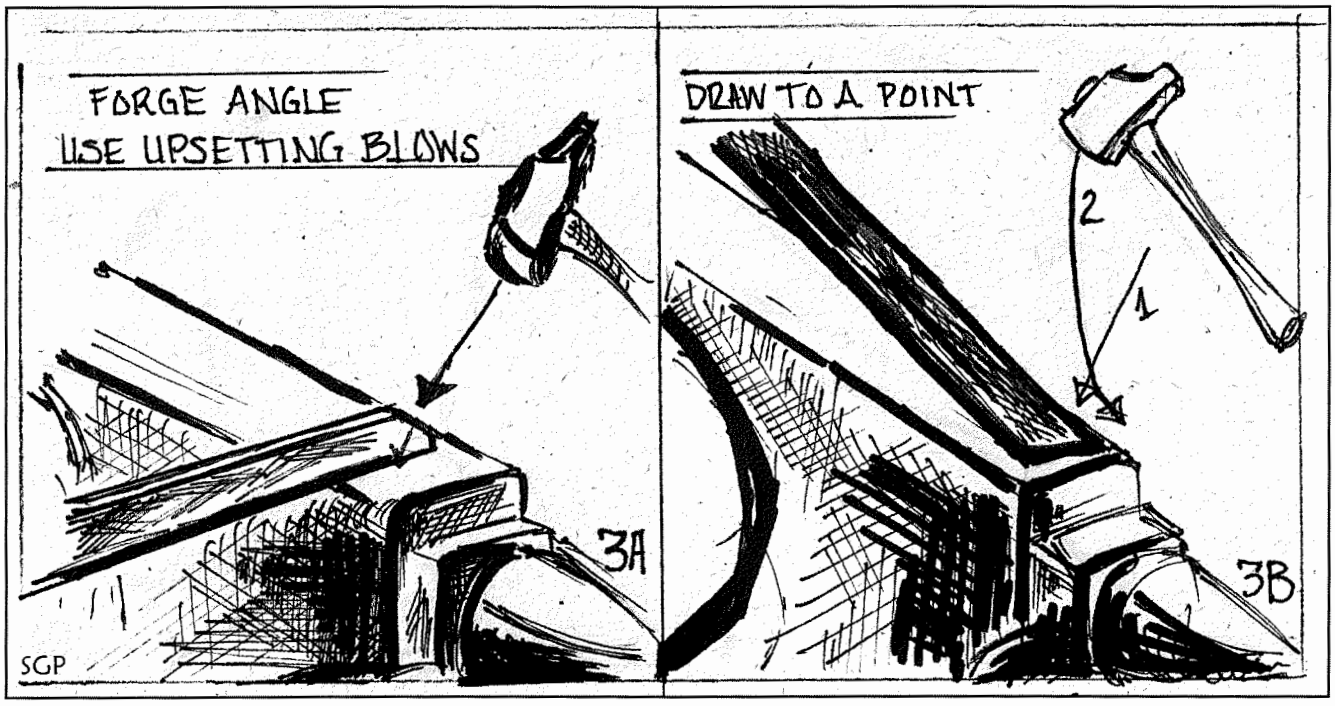
Chasing: (To chase is...) To groove, furrow, or indent a pattern, design or impression into metal with a hammer and blunt chisel.

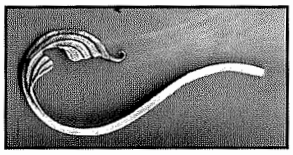
Walking a Chisel: A foremost skill. Using this technique, the chisel never leaves the piece of metal, but rather is walked, rocked and/or pivoted into place. The side of the tip facing the direction the chisel is to be walked is lifted, aimed, and slid into place (think of a rocking chair that slides forward slowly). Next the chisel will be firmly "set" and struck with a hammer. By repeating these steps, a continuous line is created. The chisel can even be walked along a curved line. Variations of this technique can be used for placing and setting chisels in many different applications. "Walking" can also be done under a treadle hammer with a fuller on a wooden handle.

Upsetting Blows: A type of hammer blow in which the hammer upsets, or pushes back, the material rather than drawing it out. This is done by driving the material backwards into itself, using the anvil face (or in some cases your hand holding the material) for resistance. Your non-hammering hand will have to provide a good deal of resistance in both cases, "lock it in" near your hip if necessary.









Half-Faced Blows: A hammer blow over the edge of the anvil in which the hammer face hits about one-half way on or one-half way off the face of the anvil. Used for "cutting in", "necking in", and drawing out. Moves material fast.

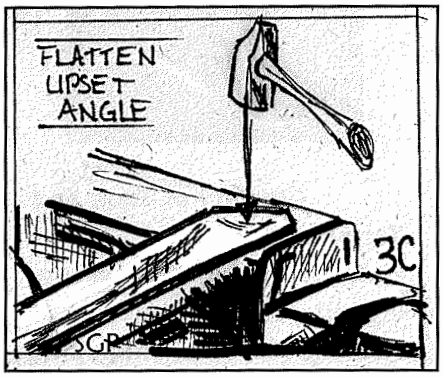
(See drawing 2B)

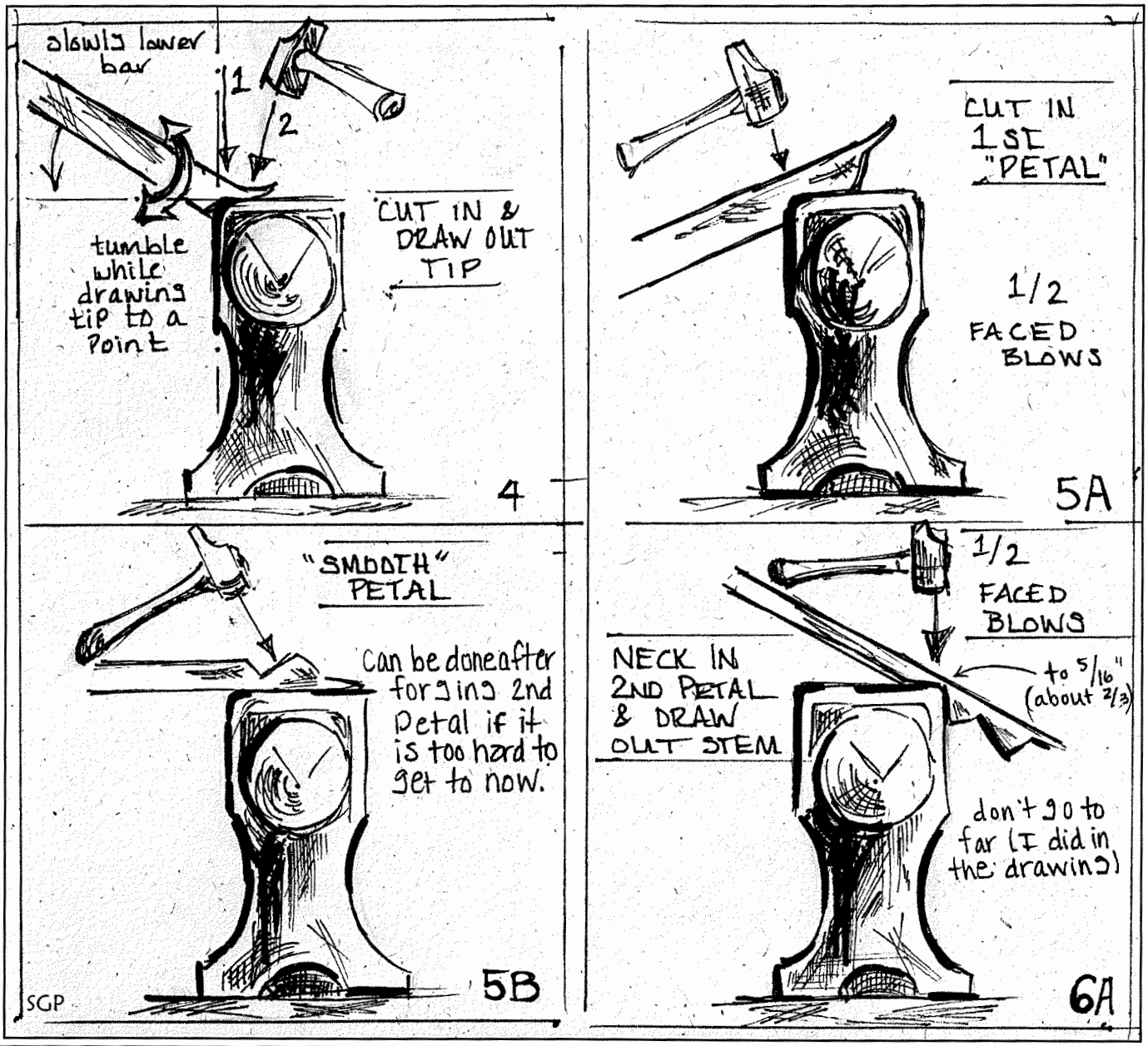
Tools and Materials

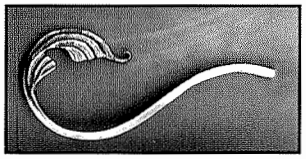
¼ x 1" Flat Bar (choose a length suitable for holding). Fullering Chisel. (Used to chase decorative lines on the leaf face. Varying widths may be used. I recommend one about ¼" in width.)

Methodology

Some smiths will claim that I have the steps out of order for

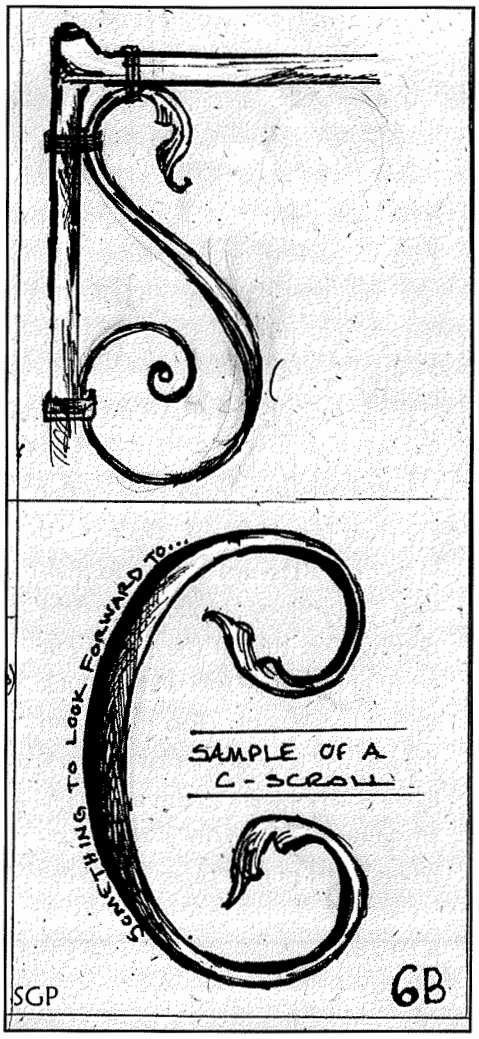






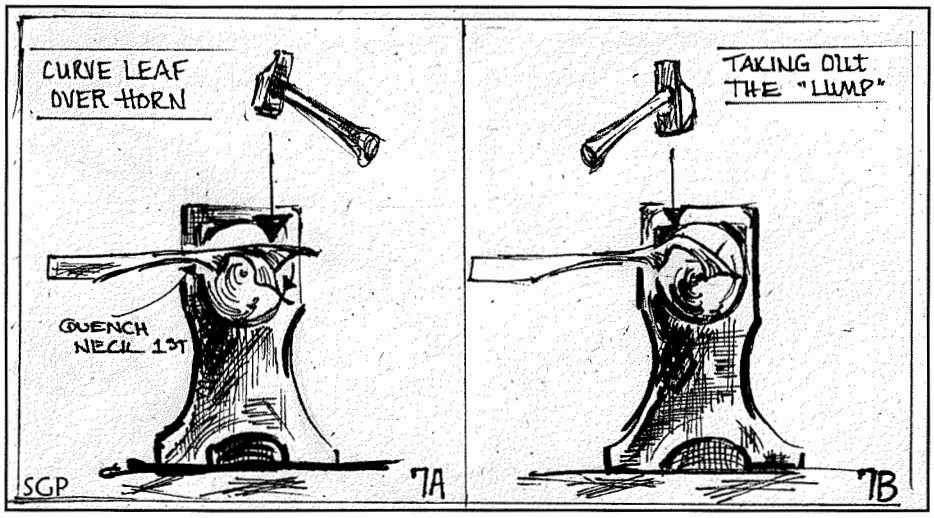
forging this leaf. I was taught the more challenging (but often more accurate) method of necking in the stem before cutting in between the first and second petals (reversing steps 3 and 4). Necking in first will ensure that the leaves come out the same length every time (allow about 2" to start for this particular pattern). Of course, this creates the challenge of forging the rest of the leaf with a thin neck that will want to bend and twist (as long as you pay attention to this while you are forging and remove any twists or kinks as soon as they appear, you will have little trouble). The method below is often considered the "easier" method, but I encourage you to try switching steps 3 and 4, which myself and a few other smiths will argue, is the more accurate method. As always, do what works for you.

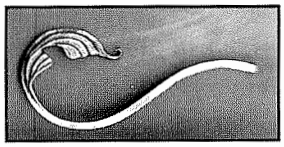
STEP 1. An "Upsetting" Taper? Forge the tip of the flat bar on edge to a steep angle that comes to a blunt point. Use "upsetting blows" (see glossary) to upset the end rather than drawing it out. Rotate the flat bar on its side and flatten the upset edge until it is the same thickness as your stock. Flip the piece of flat bar so that the top of the angle you have forged is touching the face of your anvil. Hold the piece at this (steep) angle, and use straight

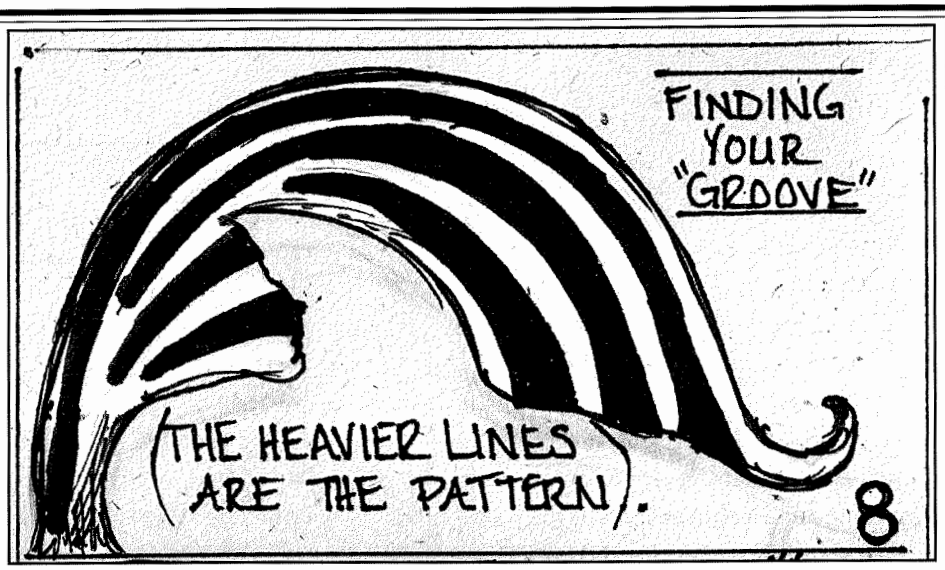


downward, slightly glancing blows to continue drawing the tip to a point. (Think of it this way: the material will move the direction your hammer is swinging, especially as you finish the blow). Be careful to avoid developing a cold shut. The end will want to fold over on itself. Rotate the piece on its side again, and flatten to the original stock thickness. The finished angle should be about 45 degrees. (See drawings 3A, 3B, & 3C)

STEP 2. Cutting in and Drawing Out the Leaf Tip. Hold the piece over the radius edge of the anvil closest to you (angle side down) and "cut in" about 1/3 of the angle's length. Start by holding the flat bar at an angle above level to make "cutting in" on the forged angle easier. Using half-faced blows, slowly lower your hand holding the flat bar as you continue hammering and drawing out the tip (stop moving your hand down when piece is level with anvil). When you have cut in deep enough that the width



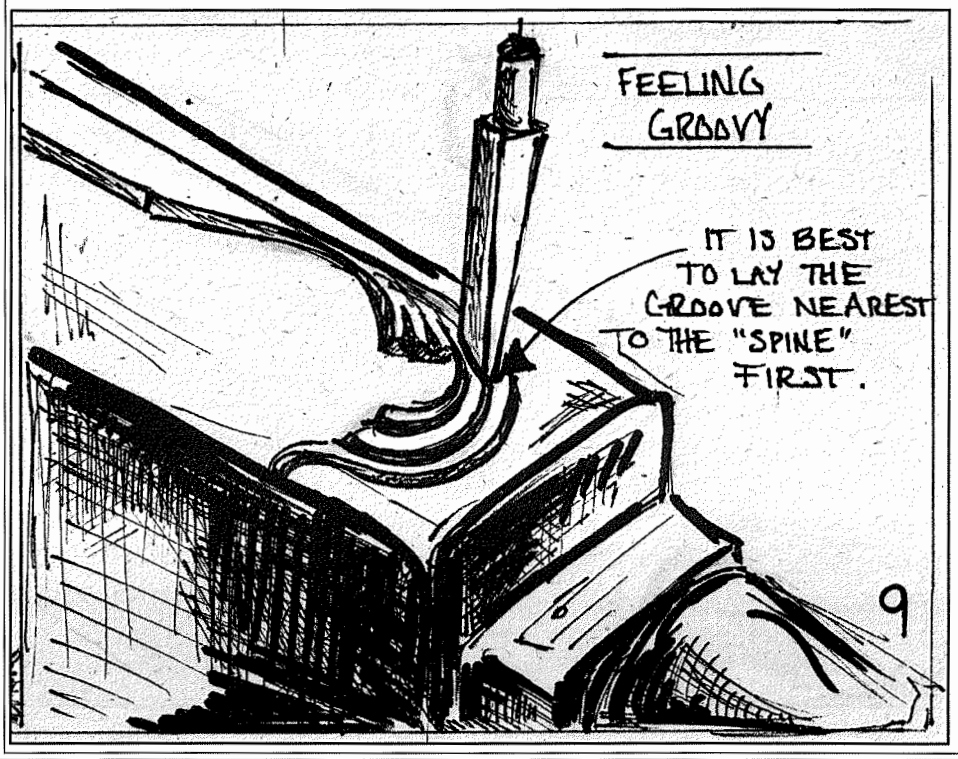


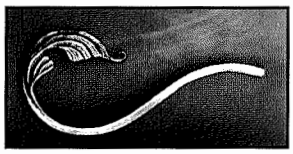


at the base of the tip is about 3/16", rotate the piece in a tumbling motion back and forth while hammering until the tip is drawn out to a point and it is as wide as it is thick (square taper). It should be about ½" in length. Chamfer the edges. You can also forge the tip round if you want. Be careful that it doesn't twist or it will want to crack at the base. (See drawing 4)

STEP 3. Forging the First "Petal." Hold the piece angle side down over the edge of the anvil and cut in about 1 ½" from the end. You should be holding the flat bar at slightly less than 45 degrees *below* level. This is an awkward hammer swing. You will have to come in at a slight angle and hit parallel to the back side of your flat bar (half faced blows). Do not cut in to deep. Do not cut in too shallow. Use your eye to judge the right depth. Too thin at the narrowest point and the leaf will want to kink at this weak spot. Too thick, and the leaf will appear chunky and inelegant and not want to curve enough. My guess is about 5/16"+ at the narrowest part of the "taper". Flip the piece onto its back and smooth out the angle you have just cut in. You will also want to rotate your piece onto its side and flatten the area that has been upset while cutting in. Chamfer the edges, of course. (See drawings 5A & 5B)

STEP 4. Forging the Second "Petal" and Necking Down the Stem. Hold the leaf over the far radius edge of the anvil at an angle slightly above level. Estimate a distance about 1/3 the length of the first "petal". Using regular half-faced hammer blows, "neck down" the stem of the leaf so that a second leaf is cut and the stem is started. When you have forged almost 2/3 of the way through, start rotating the piece with a tumbling motion while hammering until the neck is the same thickness as the flat bar stock, and about 5/6" in width. Lay the leaf with its back edge (spine) on the anvil face, and forge the back side of this second "petal" to a slight angle. (See drawing 6A)



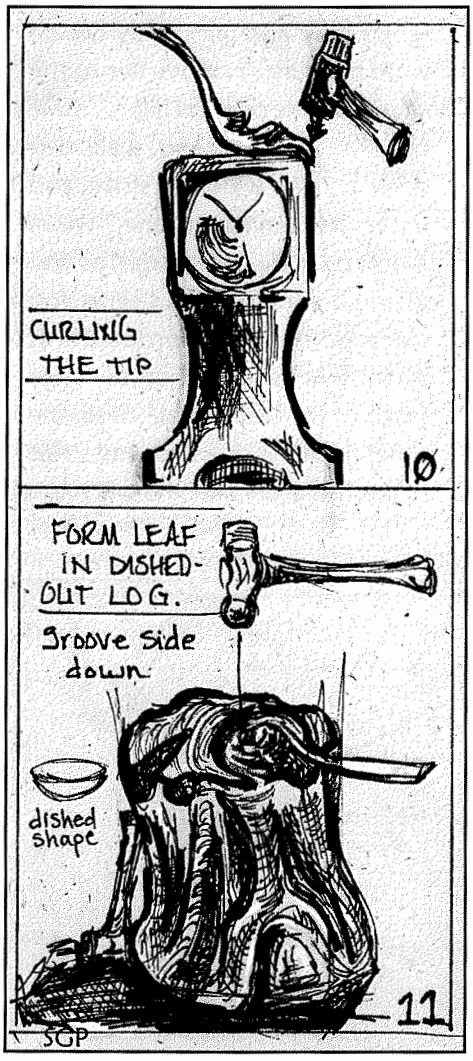


Draw out the rest of the stock to form the stem. (You can do this over the edge of the anvil, or over the horn) . . . of course use a power hammer if one is available). If you want to make a C-scroll, repeat the above processes on the other end of the flat bar and then draw out the material left between the two leaves. Leaving the middle wide and tapering towards the neck of each leaf has a nice effect. Make sure all of your transitions are smooth. (See drawing 6B)

STEP 5. Thrown for a Curve. This step is difficult, hence the name. Don't let it frustrate you. I have some tips to help. Take a heat on the leaf blank. Quench carefully up to the base of the neck so that the stem will not bend when you are trying to curve the leaf. Over the horn of the anvil, forge the first "petal" into a curve. It will want to bend at the weakest spot rather than anywhere else. When it does, move the leaf back so that the "kinked" area or lump, is just before touching the top of the horn. Strike directly over the lump. This will pull the lump out and you can again forge the "petal" into a curve over the horn. (This is a good method for opening scrolls that are too tight, or pulling kinks out of curves without risking thinning the material by forging it directly between the hammer and the horn). (See drawings 7A & 7B)

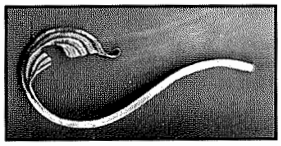
You will have to work back and forth like this until the curve is smooth and continuous. Flatten the leaf as necessary. It will want to warp naturally from the curving. (Of course if you are having a terrible time, you can try quenching up to the weakest point (narrowest part of taper) to prevent it from bending. It will be harder to get a continuous curve, but it may help if you are really struggling.

Take another heat and quench the neck of the leaf. Over the horn of the anvil, forge a curve into the second "petal". This is a difficult to achieve, but very important step. Follow the back edge of the leaf with your eye; the curve should be smooth and continuous. Make any corrections necessary now. It will be harder later when the grooves have been forged. Remember to always bring any quenched areas back to a normalizing (orange) heat. Steel is weak and brittle if left in a quenched (hardened) state. For this project this will be done automatically in future steps.



STEP 6. Walk Don't Run. Chasing Grooves into Your Leaf. Choose Your Hammer. I recommend a flat-faced, square head hammer for striking chisels . . . I've noticed the larger and flatter the face, the less likely I am to miss (duh!). Also, rounded hammer faces seem to slip (glance) more often, damaging the chisel and often the lower thumb knuckle (ouch!). There are varying opinions as to whether to use a hard/soft hammer, you will figure out which you prefer on your own. I'm not fussy about it, but I don't like using my regular forging hammer for striking chisels, because the chisel end can damage the face.

Choose your pattern. Choose a pattern for your grooves. It is best to have one continuous line follow the back edge of the leaf (if making a double sided leaf, make this

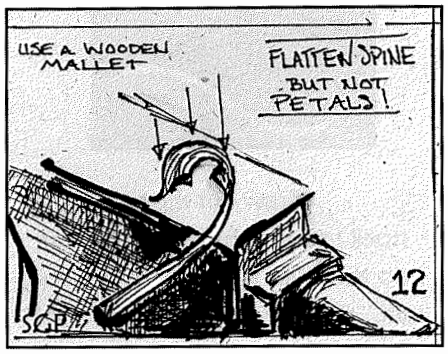


groove down the center). The layout of the lines on your "petals" will depend upon the width of your fuller (wider fuller less lines, vice vs.), and personal preference of course. The pattern I have provided is basic, but beautiful nonetheless. It is useful to keep a drawing of your pattern close by, you will be surprised how easy it is to lose sight of where to lay your lines once the "heat is on". You can also make a matching leaf blank to refer to and mark your pattern with soap stone. (See drawing 8)

Walk This Way. Note: Use a hold-down to keep the leaf firmly on the anvil while fullering the grooves.

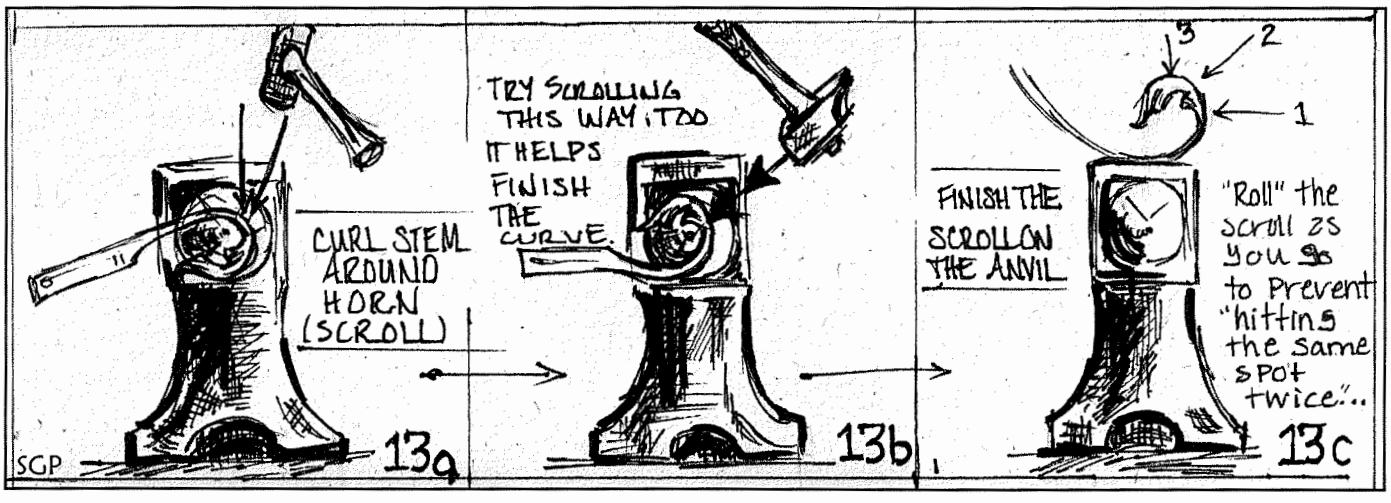
Take a heat. Begin walking your chisel along the curved outside edge of your leaf, leaving a small lip on the edge. You may have to overlap ("fan") the chisel marks to make it around the curve . . . you can smooth these marks out on the second pass. Repeat this process following the directions below until all of the grooves are finished. This is harder than it looks! Note: I usually allow the line to start a hair back into the neck of the leaf as it makes for a better transition. Also . . . the grooves will look best if they start out "tapered" and become wider (use a light touch and glide the chisel to the end of your groove, lifting as you finish for this effect).

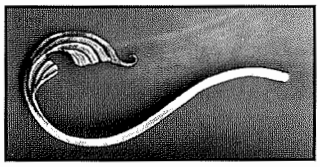
Use straight and accurate blows when striking the chisel. This is an exercise in hand-eye coordination. You will probably have to go slowly at first. Aim the chisel tip, walk the chisel forward, set the chisel (grip firmly and put steady downward pressure . . . move eye to the chisel end (the one you hit) . . . strike chisel . . . repeat. Aim, walk, set, strike . . . aim, walk, set, strike, and so on. (Humming the tune, "*we all live in a yellow submarine*" as you go sets a good pace and earns you extra points for coordination). When you have reached the edge (end) of the leaf "petal", walk the chisel sideways one step, and strike to create a wider line; this will make



the grooves more dynamic. To walk the chisel sideways, lift the forward facing side of the tip as if to "walk" and pivot to the left or right. (See drawing 9)

Now follow the line (groove) you have just made, walking the chisel backward in the opposite direction. Usually the first pass (walking forward) is used to "mark" the groove. The second pass (walking backwards) is used to smooth and deepen the groove. As you go, the chisel will start to "scoot" forward on it's own, following the path you have laid. This is advantageous, as "walking" will leave small indentations. The





groove will be defined by its edges (this is what the eye will see), so smooth them out. You can hold the chisel at an angle to get into the sides. By nature the material will spread when fullered. Use this to your advantage on the "petal" edges. It will help bring them to life.

You will have a much easier time getting the line to follow the right path on the first pass if you focus your eye on the front tip of the chisel (the side touching the hot metal that faces you). Aim this end the direction you want it to go. With your eye, draw an imaginary line in front of the chisel tip and focus on following that line forward. This takes practice, but it will start to come naturally if you perform the steps carefully. You will get faster as you go.

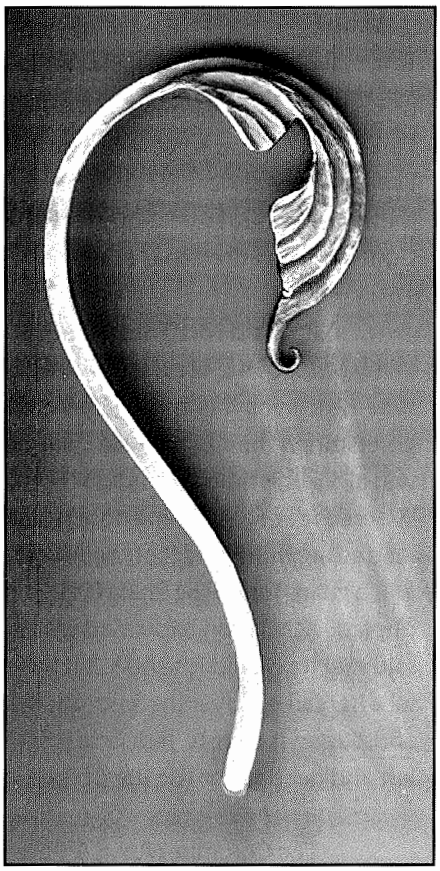
As you walk the chisel around the outside edge (spine) of the leaf, you will notice that it tightens the curve naturally. Later on, forming the leaf will have a similar effect. Keep this in mind when doing the initial curving of the forged leaf over the horn of the anvil. Create a smooth and natural "curl", but account for it's getting tighter later on.

Before forming the leaf, take a heat on the small, rounded tip and curl it over the far radius edge of your anvil. Curl it the opposite direction that the leaf curves. This step will add a lot of character. Do it now because it is hard to get to the tip after the leaf has been formed. (See drawing 10)

STEP 7. Taking Form. Now that the leaf is embellished with grooves, it is time for the final step. Forming is probably the most important step of bringing life to any forging. I like to use a hardwood log at this stage as the wood will not damage the chased lines. A carved, "dished" area on a log is perfect for this. You will be surprised by how much this step will smooth out the curve and enliven the leaf.

Take a heat. Using a ball peen hammer, place the leaf groove side down into the dished area of the log. Form the leaf into the dished shape avoiding the "spine" but pushing the "petals" forward into the dished area as much as possible with the ball peen. Return to the anvil and use a wooden mallet to flatten along the edge of the spine (grooved side up). Repeat this process until the spine lays flat on the anvil face but the petals lift upward and have a dished shape. (See drawings 11 & 12)

As a final step, curve the stem over the horn or into the log until you have created a nice, continuous scroll, or any other desired shape. (See drawings 13 a, b, & c). Try the leaf in a window grill or railing design. Maybe a sconce or a candle holder. Apply the techniques you have just learned for other projects altogether. This is excellent practice and builds many skills. Make piles and piles of leaves until you feel you may have to rake them away . . . you will find plenty of uses for them later on. Besides, steel is cheap. *So forge with abandon!*



Drawings and text by Sarah Grace Parker

Where Have All the Anvils Gone? by Richard Postman

~ A reprint of the full text from the Winter 2001 issue . . .

In preparation for the writing of a new book as a supplement to *Anvils In America* it occurred to me that I should get photographs of as many of the sites where wrought anvils were manufactured as possible. As far as I knew not one site was a forge any longer both in the United States and England, but to know what these sites looked like today intrigued me.

In July, 2001, I made an appointment with Mr. Tilton, the last owner of the Columbus Forge & Iron Co. (Trenton) to go with me to photograph the sites where the Trenton and the Arm & Hammer anvils were made in Columbus, Ohio. I asked Mr. Tilton to go with me mainly because he knows where the sites were and could find them much quicker than I could. He is almost 80 years old and not in good health, but was anxious to see the sites again. The last time he had seen them was about 15 years ago and I was with him at that time as well. One of my daughters lives about 60 miles north of Columbus so I used that as home base. I kind of "killed two birds with one stone."

I picked Mr. Tilton up at 10 A.M. and headed for the site of the Columbus Forge & Iron Co. There is a photo in my book of the site the first time that I saw it. It had closed in 1982, but all of the buildings were still there as well as the steam and drop hammers. Several years later I went back to take black and white photos, but found that the buildings were gone and in their place was a parking lot for tanker trucks for the Capital City Products Co. who had bought the site. I was alone this time and did not bother to take any photos. This last visit I expected to find the same thing, but got a surprise. Where the Forge building once stood there were now large storage tanks, lots of piping, as well as other new buildings. The interesting thing was that the whole large complex of Capital City Products Co. was for sale and had closed down. There was a guard inside the fence (the whole area was completely fenced in) and he said he could not permit us to go in and take photos. Mr. Tilton explained who he was and I told him what I was there for, but our explanations were of no avail. He said that he would lose his job if he let anyone in. I did not want to take pictures through the fence, so the guard offered to take my camera over the fence and take the photos that I wanted for me. I showed him how to use the camera (it is all manual) and passed it over to him. He took the photos that I wanted and did a good job. After talking to him a while longer we left and headed for the site of the Columbus Anvil & Forge Co., makers of the Arm & Hammer anvil.

The Columbus Anvil & Forge Co. went out of business in 1955. When I had visited and photographed the site about 15 years ago it was a parking lot for taxi cabs, but near the railroad tracks on this site there was a concrete building which I realized afterward was probably the new forge building that was constructed after a devastating fire in 1940. The forge before 1940 had been a wooden structure. There is a photo of it in the book taken about 1935. The Columbus Anvil & Forge Co. was located on West Frankfort Street. Frankfort was a short street about three blocks long and ended in front of the forge, the railroad tracks being beyond. Mr. Tilton was no longer sure where Frankfort Street was, but knew the general area so we drove around a bit before locating it. We turned left on to the street and drove two blocks until we came to a cross street where Frankfort Street ended. Mr. Tilton said "well here it is." All that was in front of us was a large open space all the way to the railroad tracks and a deep hole in the ground where the parking lot and forge once were. The E.P.A must have discovered the site and finding it polluted did a complete cleanup job, digging up the foundation of the steam hammers and removing much of the ground. It was quite a mess and was growing up in weeds. I suppose that the city has plans for the site as it is close to the center of Columbus. I do believe that the Columbus Forge & Iron Co. site will look the same in a couple of years if someone does not buy the present

company and put it to use.

I was hoping to get photos from someone living in Brooklyn, N.Y. of the Hay-Budden Manufacturing Company site. I have made contact with several people in the past who live there, but they have not sent me a photo of the North Henry Street site. I had heard second-hand that the site was now a vacant lot so I did not pursue it further. I certainly do not want to go to Brooklyn to find out what is there. In December, 2000 I received a letter from a man who lives not far from Brooklyn who said he was the great-grandson of James Hay and wanted to know if there was anything in my book about the Hay-Budden Manufacturing Company. I was able to oblige him. He seems to think that the forge building is still there and is used as a bus garage. That remains to be seen, but I should have photos of the site within a year, if not I will be forced to go to Brooklyn myself.

Anyway, not one site where forged anvils were made in this country has anything resembling a forge on the site. I have not bothered with the cast anvils such as Fisher, Columbian, Vulcan, etc. as foundries are much easier to destroy than forges. I do know that a highway now goes over the Fisher & Norris site. I had been told that a sports stadium was on the site, but found out that I was mistaken. So much for hearsay!

In November, 2001 John Catchings and I ventured to England to photograph sites where anvils had once been manufactured and to do a bit of research at the libraries on past manufacturers. My main focus was on the Mousehole Forge of which I had written an article for this journal before called *A visit to the Mousehole Forge*. This time I wanted to get good photos of everything and take measurements of the ruins etc. We went in November hoping that most of the leaves would be off of the trees, but no such luck as they had one of the warmest Falls ever. Never-the-less I was able to get many good photos.

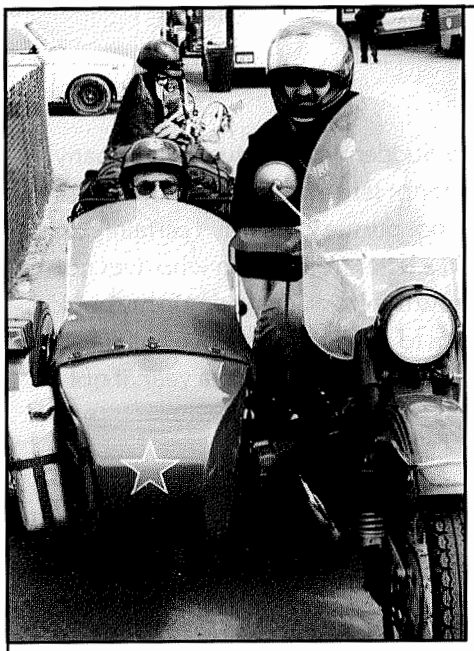
Beside the Mousehole Forge we went to every site listed in old English directories that were listed as having made anvils in both the Sheffield and Dudley areas. We even went to Leeds to check out the Kirkstall Forge site. We were not surprised to find that the sites where most of these forges once stood are now housing projects, covered by streets or occupied by commercial office buildings. There were several exceptions however.

The site of Ponds Forge in Sheffield where William Parker made anvils in the mid-19th Century is now a large sports arena. On one side of the sports complex the anvil of one of the large steam hammers is still there as sort of a memorial. The anvil with its base is over seven feet high. It would be expensive to remove and, because it did not interfere with the construction of the new arena, they left it there.

At several of the other addresses in Sheffield we could discern some old buildings that might have been part of forges; at least they were from the 19th Century. We photographed all of these sites.

In the Dudley area we discovered some old buildings of Peter Wright still there on Constitution Hill. We discovered from library research that Isaac Nash bought the Peter Wright works on Constitution Hill in 1903 and moved the operation to Wollaston Forge near Dudley. He then sold off the old site on Constitution Hill in several parcels. Half became houses and the part we saw became Shedden-Wright Engineers Ltd. When we photographed the site it was derelict. John even brought back one of the bricks from this site. He also got one from Mousehole Forge. I had too much stuff to add bricks to my luggage!

The sites where Henry Wright and the Wilkinsons made anvils are gone and houses and streets now cover them.



N.W.B.A. Fall Conference Chehalis, Washington, October 12-14, 2002, Co-chairs Al Karg and Don Kemper,

N.W.B.A. Spring Conference will be at St. Helens, Oregon, April 25-27, 2003.

Gary Cloyne Annual Hammer-In
August 15-17, 931 Deetz Road, Mt. Shasta, California, (530) 926-4418, blacksmith@snowcrest.net

Grants for blacksmith classes are available from N.W.B.A.! N.W.B.A. has an active grant program that gives up to $250 for attending blacksmith instructional courses. The recipient is required to either demo what they've learned at a conference or write an article for the Hot Iron News. Take advantage of this great member benefit! Contact either Gary Chapman or Terry Carson for further details and an application form.

Don Kemper Workshops at Earth, Wind, Fire and Ice Forge, Ridgefield, Washington, just north of Vancouver include:
Doug Newell, September 20-22, 2002, a design-oriented workshop. Extensive time is planned for demonstrating basic power hammer use/tooling, then specialized tooling/use of the hammer in forging design. Plan on some "hands-on-design" planning by students. As time allows we will ask Doug to share some unique skills picked up in training by traditional British blacksmithing methods.
Berkley Tack, September 27-29, 2002, a basic blacksmithing workshop to get you started right! Beginning with safe shop knowledge, progressing to forges and firebuilding, expect to produce a number of small items.
Darryl Nelson, October 25-27, 2002, learn how to sculpture in hot iron. Animal heads will be the format to learn sculpturing tools and techniques at the forge. You will build tools, learn good design and have close-up views of forging demos. Students will forge three-dimensional "notes in iron" to take home.
Terry Carson, November 1-3, 2002, an intermediate workshop covering new designs/projects and techniques. A great opportunity to enlarge your blacksmithing skills.
Jay Close, Colonial Williamsburg, November 8-10, 2002, this is a continuation of the Williamsburg Blacksmiths projects by Peter Ross. Jay is a gunsmith and a Williamsburg-trained smith. He will do a coopers compass project. Class fee is $265. Coordinated by Ike Bay. Contact Ike for more info and registration at (503) 645-2790.
A demo will start each workshop with plenty of time for questions and individual help as you forge. Hours are Friday and Saturday from 9-6 and Sunday from 9 to noon. Fees, except as specified, are $200. For details contact **Don Kemper**, (360) 887-3903, kemper@pacifier.com.

A Sweeping Offer! Warren Olney, POB 1182, Grants Pass, Oregon 97528, (541) 474-3575 makes and sells brooms and puts them on your forged handles. See, www.broomshop.com. Early American brooms. brooms@budget.net.

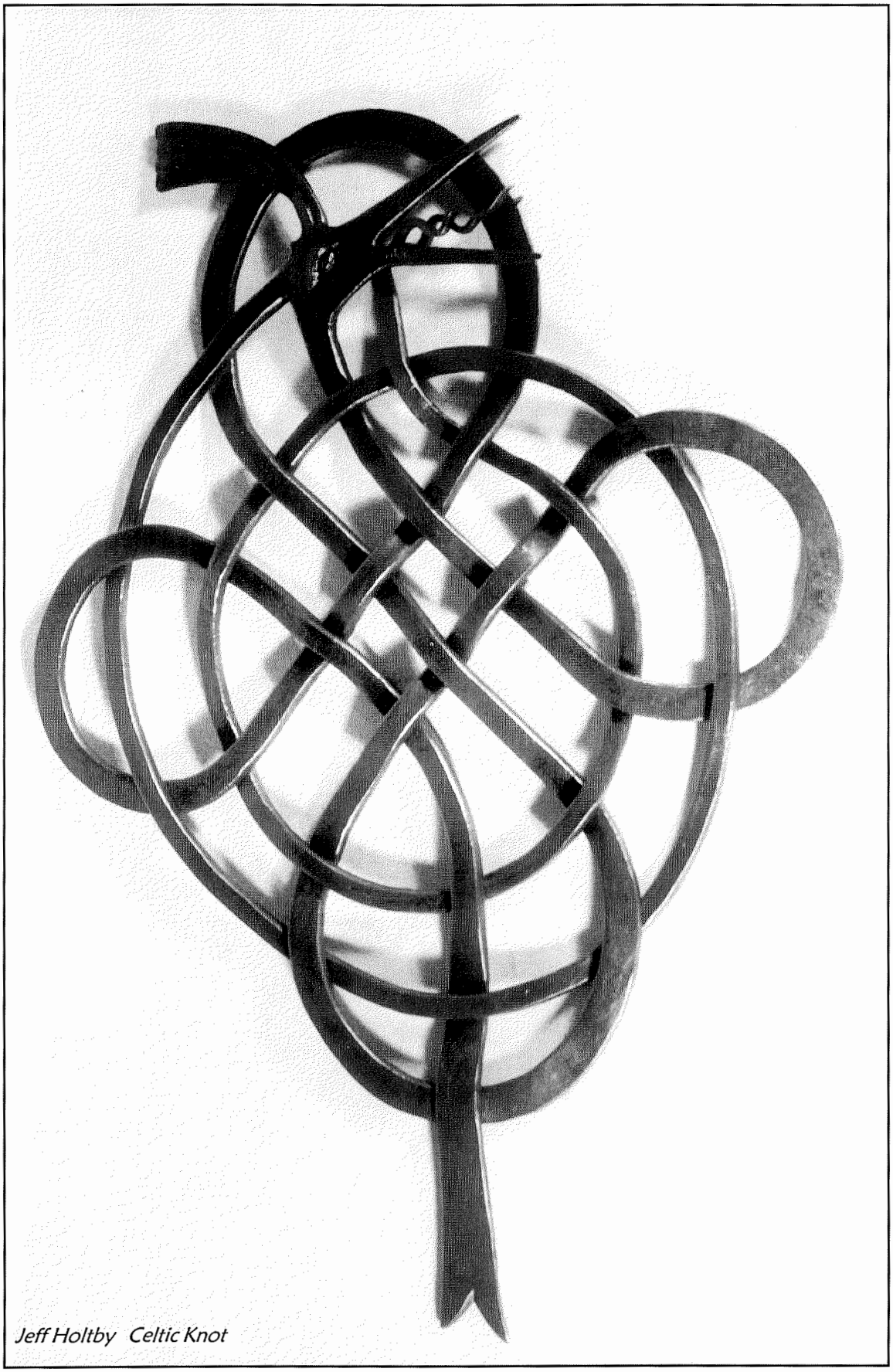
Wayne Lewis has coal from Pennsylvania, Canadian coal coke, and tons of other blacksmith stuff, including anvils. (360) 678-5969, Coupeville, keystone@peoplepc.com

Old Cedar Forge N.W.B.A. Workshop 2002 Schedule with Jerry Culberson~
July 12-14 Basics, novice
August 16-18 Basics, novice
September 13-15 Intermediate/Tool Making/Joinery
October 25-27 Basics of Blacksmithing, Novice
November 15-17 Intermediate/Tool Making/Joinery
December 14 Old Cedar Forge Open House/Open Forge~No registration required.
Old Cedar Forge is located in Allyn, Washington. 360 275-6769 or oldcedarforge@web-o.net. Class size is limited to eight. Cost is $315 for three days. $150 non-refundable deposit assures your place. Membership in N.W.B.A. is required and is $35. Breakfast buffet with truffle omelets and ice sculptures is included. Saturday night gourmet dinner with a full-range of French wines and served with Christophle' silverware. Call the resident maitre'd early for placings.

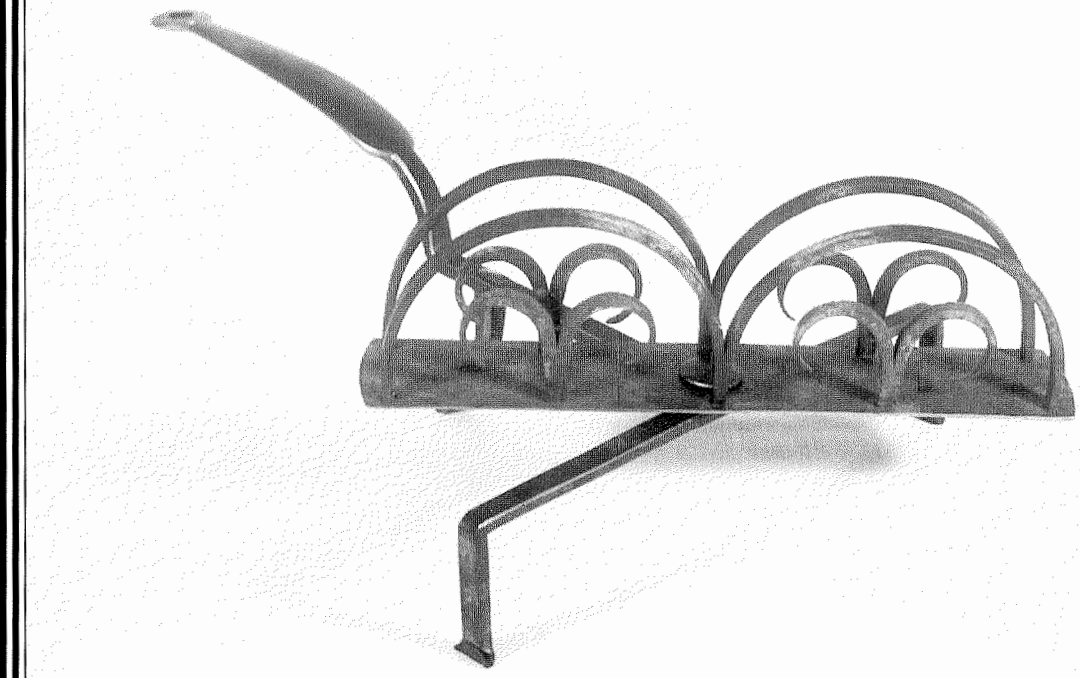
Henrob torches are handy little guys! *"Words alone cannot express my satisfaction with my Henrob." Editor.* Gary Cloyne can fix you up with one of these hummers. You can weld a bead on a gnat's rear-end! Kit includes video, etc. plus Gary will give you a two-week all-expenses paid vacation on the top of Mt. Shasta if you're not completely satisfied! (530) 926-4418 or blacksmith@snowcrest.net for the complete sales pitch!

Summer is a great time to work on the Fall Auction item! The Fall Conference is just around the corner! When you're doing that special project do a duplicate for the Auction! Gain fame and immortality when it's picture makes it into the Library of Congress via the Hot Iron News!

And while you're forging that Auction piece--write an article about it and send it on in. Yes, You, Horatio! The lake is calling. I'm outta here! *ed.*



Jeff Holtby Celtic Knot



Peter Ross, Colonial Williamsburg Fireplace Toaster

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