

Spring/Summer 2001

# HOT IRON NEWS



VOICE OF THE

“Hammer the Americans hard enough  
and you forge the best Weapon in the  
World!”

~ *Captain Simeon Ecuyer in a letter to Colonel Henry Bouquet  
during the seige of Fort Pitt, 1763*

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Kirkstall Abbey



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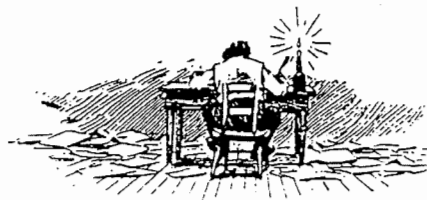
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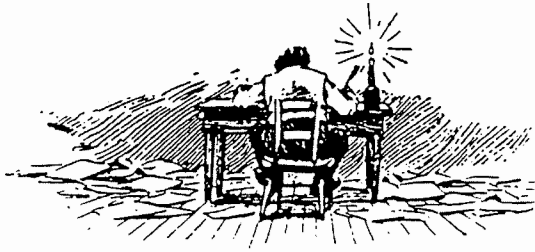
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## Editor's Notes



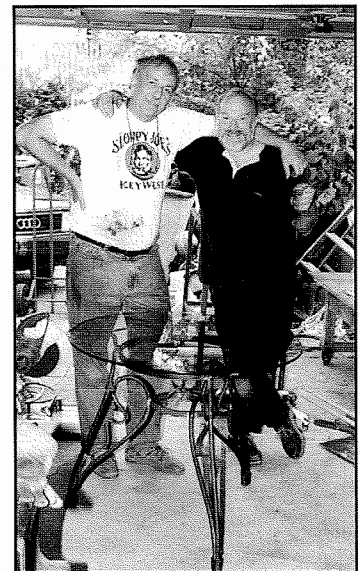
August was an excellent month. This was because for two weeks Willem Yonkers and his son Lennert visited in Spokane. Those of you who were at the Spring Conference in Eugene in 1997 will remember Willem's great demo. Those of you who weren't would do well to check out his demo video from the N.W.B.A. library. I count his demo as the best one that I have ever seen. Every time I watch the tape I see something new! Willem is from Holland. Based upon my modest observations, I believe that he is certainly among the top five blacksmiths in the world, and I wouldn't hesitate to argue for first place! Check out the photo of the Golden Gate on the Dutch palace on the last page of the Spring 1997 Hot Iron News. His work is original and exquisite, as you'd expect for the blacksmith for the Royal Dutch family. He's six-generation. I also managed to talk him into forging a round dining room table, with myself as a very nominal helper. He forged all three leg supports, riveted them to the frame, did the finish work, and laid the 36" piece of glass on top. It fit **perfectly!** No re-heating, tweaking, rebending--such as us ordinary mortals would suffer. All three were *exactly* the same. The three touch-points for the glass were precisely the same height from the floor. The three slide-stops on the edge of the frame were precisely the same 1/32" distance from the glass. It was perfection incarnate! Willem took a side trip to Seattle and performed his magic at Black Dog Forge. Louis Raffloer is still murmuring at Willem's demo there.

I hope that a lot of members can at least stop by to say hello to the ABANA Board of Directors when it meets in Seattle from Thursday, November 1, through Saturday night. The N.W.B.A. has invited the Board to the Pacific Northwest. Saturday night plan on attending the reception at the Black Dog Forge--Louis promises that it will be a Junior Blacksmith's Ball! Louis is planning to have an iron exhibition kick off that night. Give him a call and send a piece of your work over for display. We'll try to run photos of the exhibit in the News. You'll be able to meet Board members, ask questions, and get the latest on plans for the great ABANA conference being planned by the Board in Lacrosse in June, 2002. The Board has invited the World-Reknowned N.W.B.A. Auction team to once again take the field. The Conference is June 5-9 so pencil in your calendars. Maybe one of these years N.W.B.A. will actually bite the bullet and host one!

September was going great until the tragedy in New York. The Coeur d'Alene Conference, with the Canadian and Northern Rockies groups should be great. I intended the Cover to be a statement, on behalf of the N.W.B.A., that memorializes our group's sentiments. Captain Simeon Ecuyer was in a tough spot at Fort Pitt--surrounded by hostile indians. His eloquence is especially relevant today.



*"Hammer the Americans hard enough and you forge the best Weapon in the World." - Captain Simeon Ecuyer, 1763*



*Willem Jonkers and the Editor's new table!*



# PREZ SEZ



## HEY! HOW ABOUT THAT PONDEROSA FORGE!?

That was the common theme at our Spring Conference in Sisters, Oregon. Jeff and Heather Wester were our hosts and freely shared every corner of their shop (and thats one big shop to share!) Thanks!

With everyone helping, our conferences just keep getting bigger--AND BETTER!

The talented E.A. Chase and our own dynamic Joe Elliott as demonstrators, an expanding program of hands-on workshops and lots of space for midnight madness provided everyone with new ideas and opportunities to apply it.

We had about 150 smiths register and a total of 250 for dinner Saturday night, and each deserve a rousing THANKS for the work each of you contributed!

Speaking of contributions, your auction pieces brought the club \$3738 (thanks to your pieces donated to the auction--and Jerry's prying open the purse strings Saturday night!) Most of that will support the club's functions such as scholarships, library, gallery storage/equipment trailer, etc. A small part helps underwrite conference expenses, helping to keep registration fees low. Remember, we give a deduction on registration if you donate an item to the auction AND give a year's paid-up membership if the item you donate brings \$250 at the auction--a great way to help the club--and show up some of your latest work!

A motion was approved at the meeting Saturday night to make the membership year run January 1 to December 31. This will take effect beginning with the year 2002. Ina Culberson volunteered to oversee sending out renewal notices in November, beginning this year.

Dues for the rest of this year and for future new members are 100% January 1 through June 30, 50% for July 1 through December 31. Your renewal date is always shown beside your name on the Hot Iron News. This change will help ensure your dues do not lapse and you miss an edition of our "World Class Publication"--plus our treasurer will be freed of spending every Sunday afternoon logging a couple of dues received and making a trip to the bank every Monday. Thank you for your help in making this change!

NOTICE: Nominations for the Board of Directors will be open until the end of the Fall Conference at Coeur d'Alene. You can present nominations then, or send them to Elections Manager Al Karg until then. Being a director entails quite a bit of work--so be sure you have the nominees approval before submitting their name. It's just another way to contribute to making the club the success that it is!

So, Good Forging--take time to challenge yourself with a new technique or design. As Scott Adams, creator of the *Dilbert* comic strip says, "Creativity is allowing yourself to make mistakes. Art is knowing which ones to keep!"



Tags on the Prez'  
Miata!

# In Search of Ferro Battuto in Northern Italy...

by Terry and Louise Carson

**I**n the Fall of 2000 my wife Louise and I had the opportunity to take a long-planned-for vacation to Southern France and Northern Italy. Louise had spent five years in Italy before we met and was looking forward to seeing that part of the world again.

One of our planned stops was the truffle and wine festival in Alba, located in the Piedmont area of Northern Italy. The promise of gourmet food and wine from one of the world's premier wine-producing areas was our excuse to visit there.

Arriving in Alba after the festival had begun, we found no rooms available in town. The closest hotel we could find was in Canale about six kilometers north. After checking in and having dinner we went for a walk, enjoying the centuries-old buildings with wrought iron balcony rails and window grilles, interesting masonry work and marble facades. Louise had gone ahead and around a corner into a church courtyard. I heard a call "Terry, come here" and when I caught up she was looking at a most amazing gate depicting the crucifixion of Christ done with skill and artistry combining hand-forged detail with power-hammered textures and modern (tig welded) joinery.

The piece had been made by Luigi Scarsi who is the deputy mayor of Canale. Luckily, I had Louise along to be the translator and pathfinder. She made arrangements to meet with him the following Monday.

Sunday at the Tartufo Festival was a cacophony of sights, sounds and smells with the odor of truffles (a fungus which grows underground and is harvested by secretive gatherers using dogs and sometimes pigs to sniff them out) being pervasive.

An excellent lunch with suitable amounts of tartufo bianca (white truffle, worth about \$40.00 for a walnut-sized one) and a bottle of Dolcetto di Alba made a memorable meal.

The afternoon was spent at a medieval pageant where each of the town's nine boroughs did a parade and re-enactment of an event of historical significance. The period costumes and weaponry were quite impressive. This was followed by a donkey race that was hilarious.

Monday we visited Luigi's shop, a large well-lit building with four men working on projects ranging from replicating hinges to fabrication of modern



*Terry Carson and Luigi Scarsi, Deputy Mayor of Canale, Italy*

railings and the creation of an Art Nouveau gate designed by Luigi.

Coal forges were fired up, two made-in-Italy air hammers showed indications of much use and a hydraulic press was located for maximum accessibility. I spent nearly an hour looking at tooling and sample pieces representing several generations of work by the Scarsi family. Luigi then took us on a tour of his work around town; gates, sculpture (a sad-eyed horse representing the unacknowledged workers of the world) a grapevine railing and flower-motif gates that are a wonderful combination of reality and fantasy.

He suggested that we go to Acqui Terme about sixty miles away to see what he termed "the best ironwork of this century" by Ernesto and Mario Ferrari. After getting lost several times we finally located Mario's

widow who graciously invited us into her home to see her private collection including fish, stags, beaver, snakes, birds and many representations of St. George slaying the dragon in both solid stock and repousse.

This work is of consummate skill and artistry that comes from deep in the heart. From the scales on the snakes to the expressions on people's faces, each detail was included with precision and *elan*.

Some of the work was intricately engraved and inlaid with gold wire. A keyholder and key with the handle consisting of a naked woman sitting on the shank and her hair forming the loop is one of the most detailed pieces I've ever seen. The basement detail shop has hundreds of chasing and repousse tools still neatly arranged as though the smith had just departed for the night. On the forge hood in chalk is written "*Qui il*





*Gate by Luigi Scarsi*

*lavoro non e castigo!*" ~ "Here work is not punishment!"

Again not having hotel reservations was a blessing, when the first hotel said they were full we continued down the street to Hotel Ariston. Where after returning from dinner Louise asked the hotel owner the location of the museum containing the Ferrari's work.

He said that he had been a close personal friend of Mario Ferrari and had one of the largest personal collections of his work, including a headboard with more than a pound of gold inlaid into the decorations. Then he showed us a tobacco box with repousse, a snail with gold inlay, a cluster of four flowers with roots forged from a large lag screw used to hold down railroad tracks, a section of the threads was still visible and undamaged with the decorative work on

each end, a corkscrew with two fish heads and gold inlay as well as a tuft of ripe grain about four-feet tall with blackbirds perched on the stalks that moved when it was touched as though it were being blown by the wind.

The museo is incredible, with four small rooms above an Enoteca (wine library) packed with tools and examples of the Ferrari's work. If you are ever within a hundred miles of the place it is a must see.

Our trip continued with stops in Viareggio and the Cinque Terre, doing all the usual tourist things. Then to Lucca an ancient walled city where we found a shop specializing in metalwork. The proprietor was friendly and informative and the shop was filled with fire tools, screens, andirons, chests with intricate locking mechanisms, and a snake lantern holder that he

claimed was by Mazzucetelli (no signature) and a lovely 17<sup>th</sup> Century corner bracket with all the frills. Then it was across the Apennines, the mountainous backbone of Italy, to Meldola and a visit with Angelo and Angelina Bartolucci, who were at the ABANA 2000 Conference in Flagstaff.

We were welcomed into their home by Angelina who prepared a wonderful lunch while Angelo proudly showed off his work. The kitchen and sitting room are full of a collection of pieces that are inspirational and amazing.

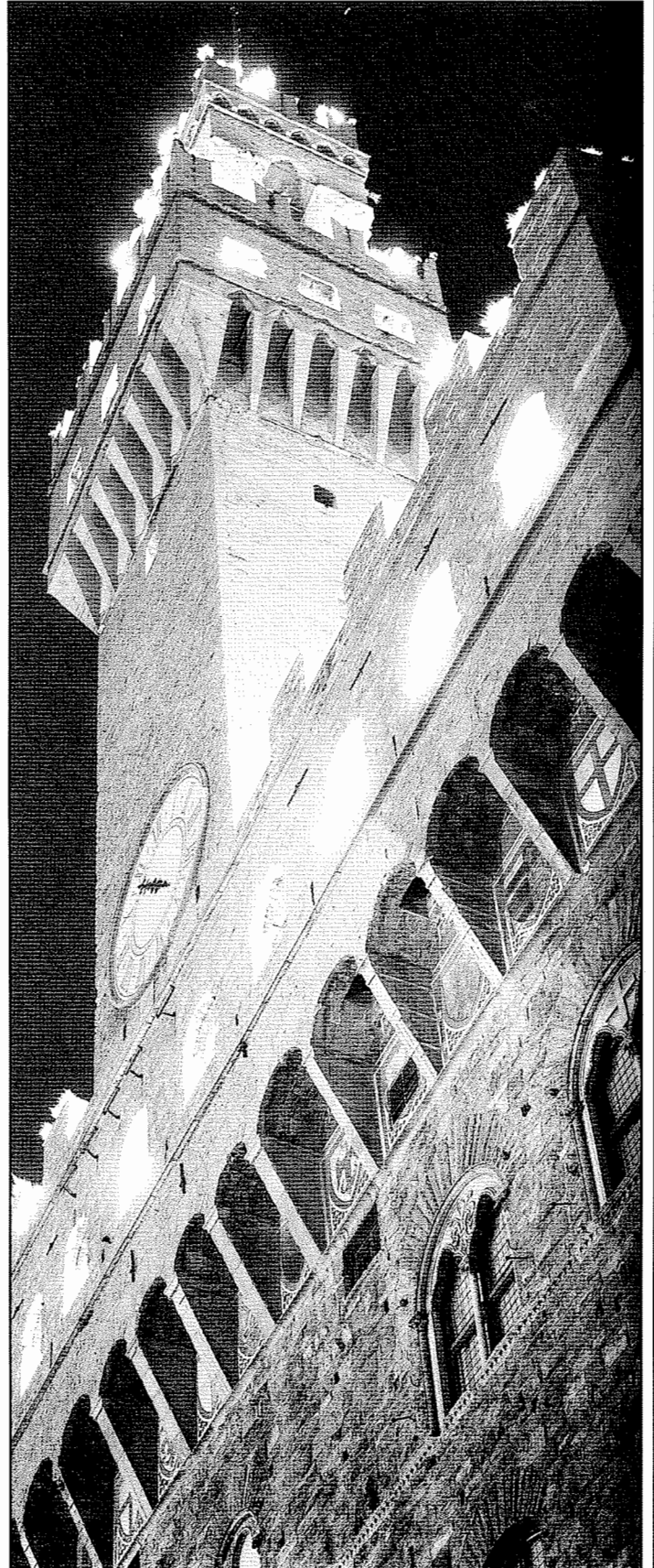
Angelo is of the eighth generation to work iron in this locality, and his work shows an understanding of the material and techniques that allow him to bring “anima” or life and soul to the creations of flora, fauna and fantasy that fill these rooms.

In the first level of shops under the house Angelo creates miniatures that include the working blacksmith shop he brought to Flagstaff, a woodworkers shop with functional machinery, as well as a reproduction of his father’s shop with working lathes, drill presses, shapers, a power hacksaw and other tools all driven from an overhead lineshaft. Among the works in progress are miniature break-open shotguns, lever-action rifles, railings, andirons, firetools, lamps, etc. all showing the attention to detail that characterizes Angelo’s work.

The next day the tour continued to the second level of basement shops where their son Guiseppe has a machine and fabrication shop that sends work to industry in Italy and beyond.

The forging shop is on one side and has two mechanical hammers, both coal (much preferred by Angelo) and gas forges, anvils that have been in use for more than two hundred years and a collection of tools and stakes that have aided in the creation of works by this “Grand Master of Ferro Battuto”.

Angelo speaks almost no English and I have a similar command of Italian but its amazing how well you can communicate with a common system of numbers and a sketch pad. Angelina and Louise talked about many

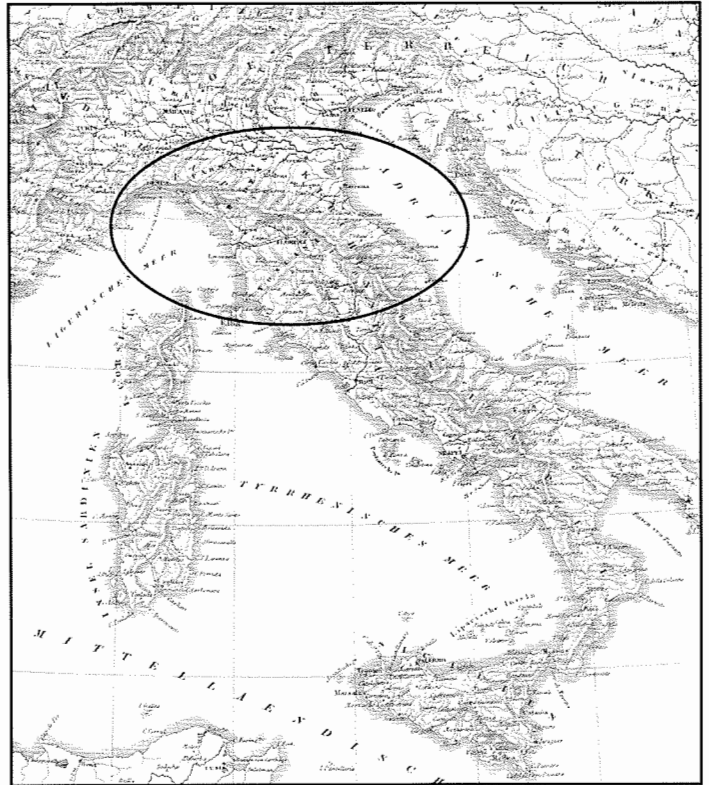


*Palazzo della Signoria in Florence at night*

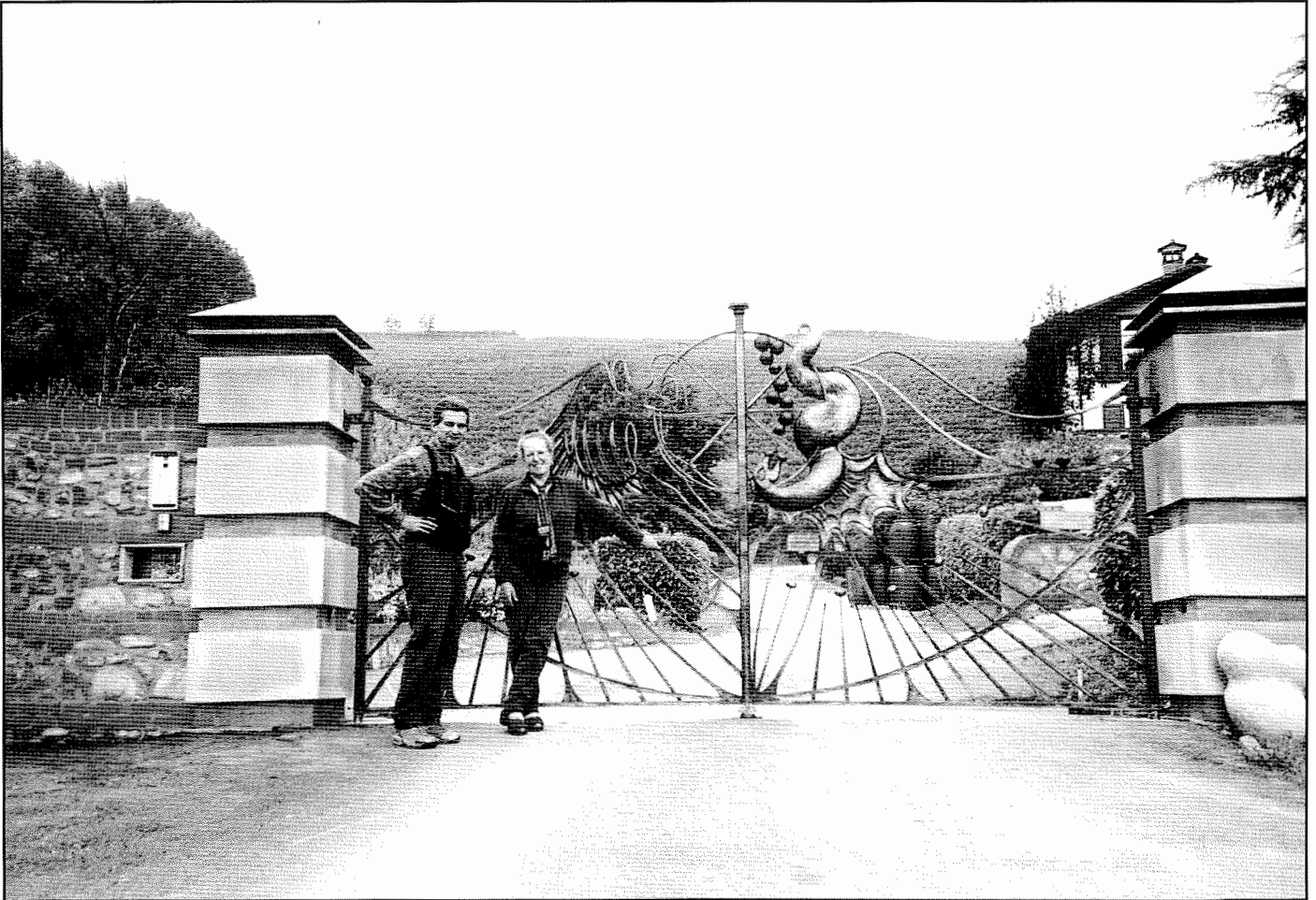
things while Angelo and I headed back to the basement where we went through years worth of drawings covering works he had designed and built. Then he led me to a corner containing a pile of boxes and started pulling sample boards from the ones on top. Each board showed a new and wonderful forging and the steps it took to make it. After a couple of boxes he would say "finito" then turn and uncover more boxes filled with more sample boards, stopping often to make sure that I understood the steps involved.

This collection is a treasure and Alesandro Ervas, a young Italian smith is working on a book bringing it to light that will hopefully be published by Skipjack Press in the future.

Our trip continued northward toward Treviso where we visited Alesandro and his parents Ermano and Tina who have a shop "Artistico Ferro" in San Travano. Again we received the warm welcome that is so typically Italian. The Ervas' have a shop equipped with







*Luigi Scarsi and Louise Carson near Canale*

air-hammers, forges and traditional tooling as well as all the modern tools of a fabrication shop. A wide variety of work is performed from restoration to innovative sculptural and architectural pieces. The natural theme and a refined sense of design are apparent.

The next day they contacted Ada Bennetton and arranged a tour of the Toni Bennetton studio and sculpture garden. Ada showed us through the collection and then took us to the shop where some of this work was created. Toni Bennetton was noted for his innovative approaches and the colossal scale of some of his pieces.

I'm dazzled by all the the possibilities that present themselves after seeing the many techniques used and the courage it took to even attempt them on the scale

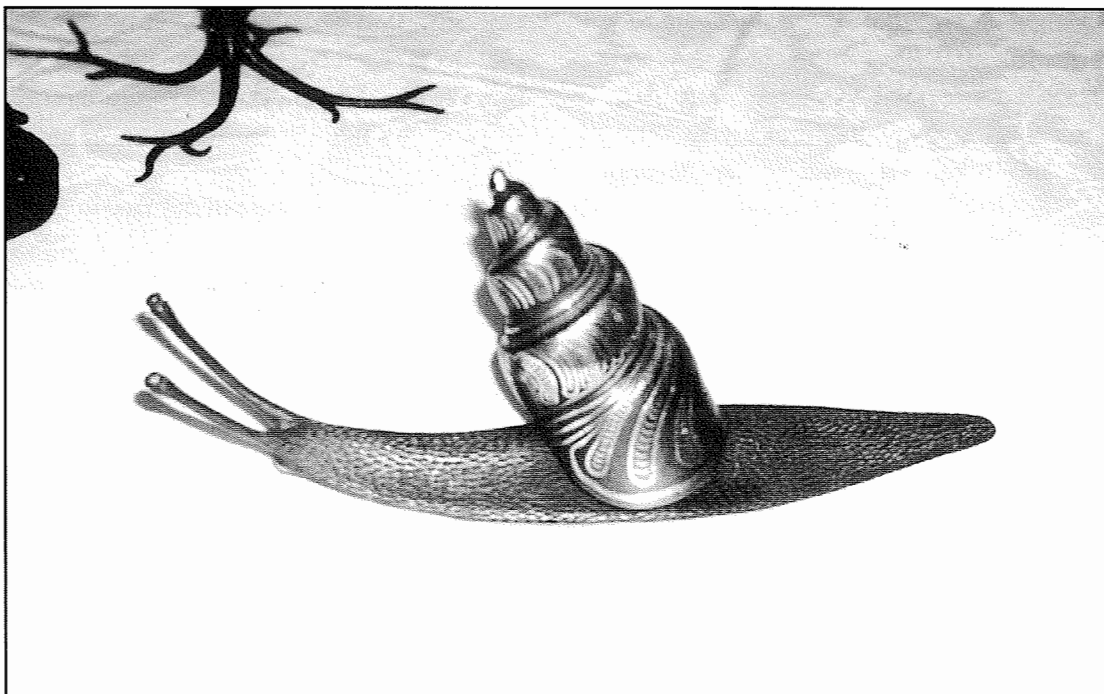
demonstrated here. What gives me hope is the fact that the pieces were made with tooling and processes that we are all familiar with, differing only as to the size and vision.

A trip to Venice completed our stay in this area, then it was on to Milan where we had an opportunity to see works done by the master Mazzucatelli, thanks to locations mapped out for us by Steve Bondi.

I'm sure that we passed within miles of other shops that also had fantastic work and I know we only covered a small part of the country. So if you have the chance, I recommend that you also go in search of "*ferro battuto!*"



*Ada Benetton in Toni Benetton's Sculpture Garden near Treviso*



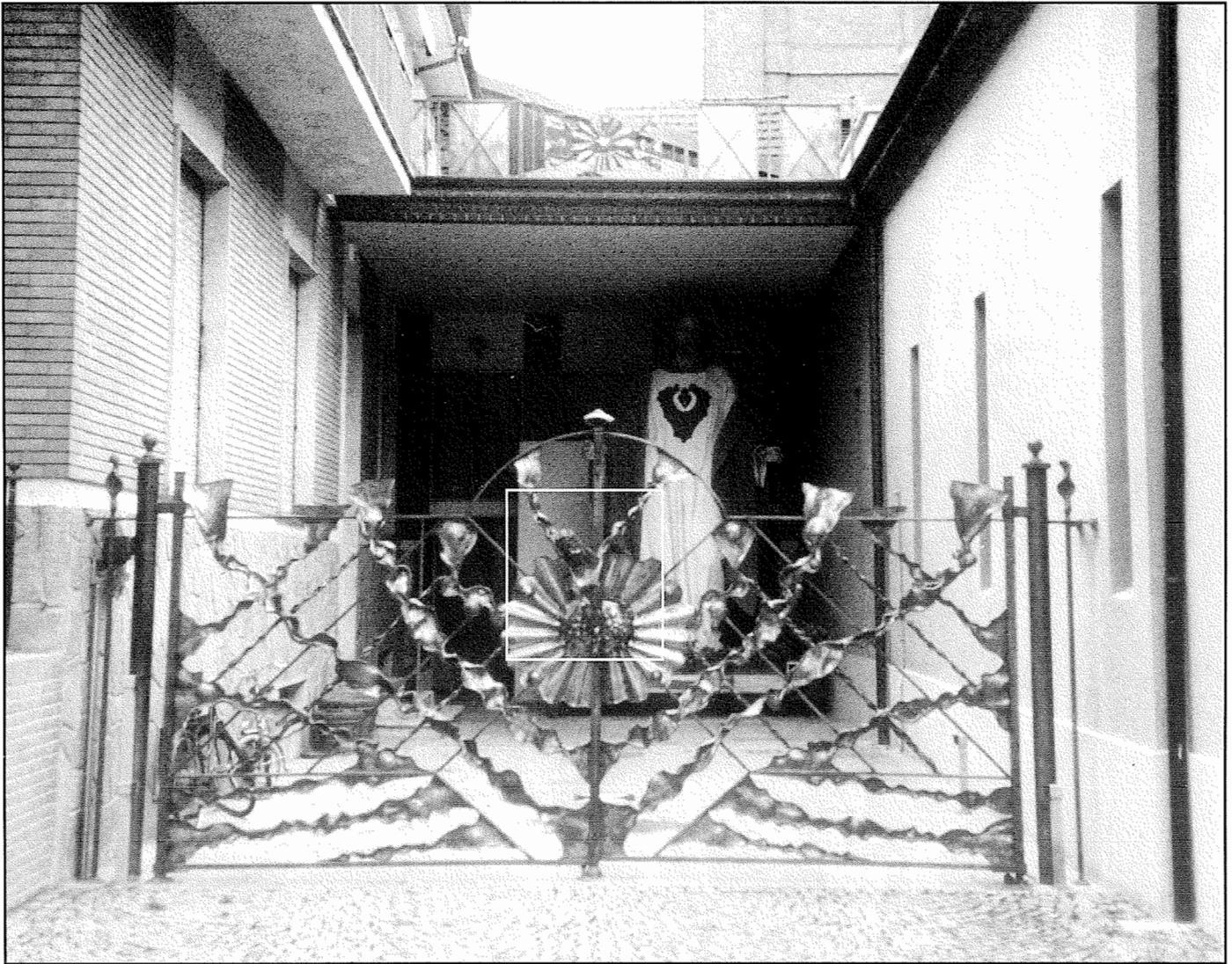
*Snail by Mario Ferrari*



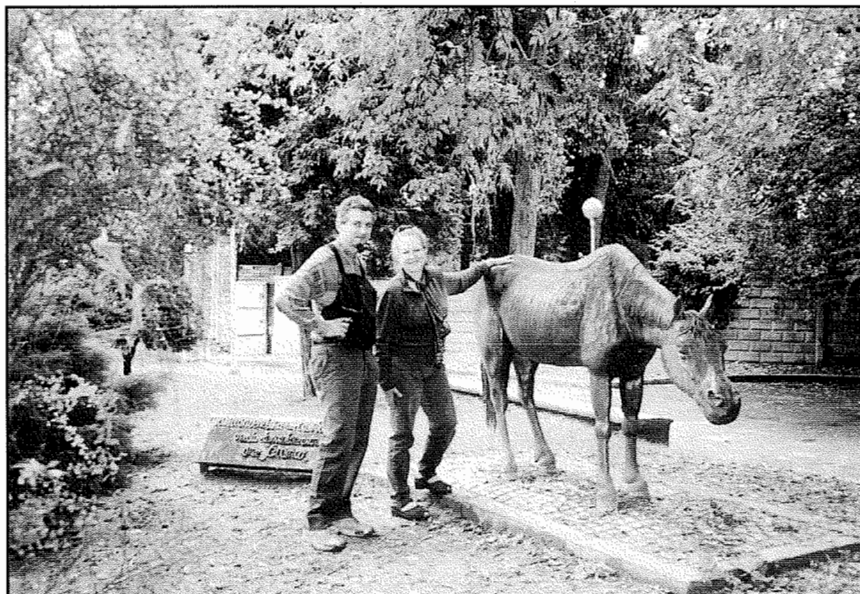
*Detail on Gate on next page by Luigi Scarsi*







*Garden Gate by Luigi Scarsi in Canale. Note Christ detail from preceding page in white box.*



*Horse Sculpture~ representing the unacknowledged workers of the world! ~ by Luigi Scarsi*



Christa Fairbrother *Tipsy Turvy*



*Vinettes* These are 5 1/2" spun sterling silver tube riveted to a mild steel base. The bases were plasma cut and forged from a 4" piece of schedule 40 pipe. Set of four (8 1/2" by 3 3/4"). These have a more sturdy feel and are very comfortable in your hand to carry on a conversation with.



**T**hese pieces were all recently displayed at my Bachelor's of Fine Arts Show at the University of Washington. They all explore my interest in combining precious/common and ferrous/non-ferrous materials.

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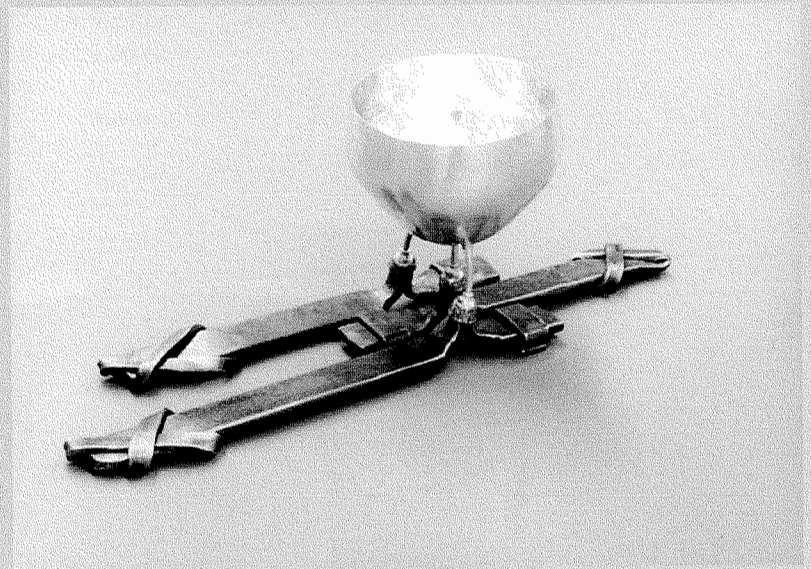
*Liqueured Ladies* These are 4" spun sterling silver cups with a soldered mokume gane "skirt". The base was forged from a 1" piece of 1" round stock with a tube riveted through and soldered to the cup. Set of three (4 1/2" by 3"). They feel delicate in your hand and are appropriate for sipping your liqueur.



*Monoecious* This vase was raised from a 12" sterling silver disk. The base was from 1" mild steel mortise and tenoned through a piece of 1/4" bean-shaped plate. The vase form lifts off the base and is purely gravity fit. The dimensions are 12" by 9" by 8". The design was inspired by the botanical forms of new sprouts or shoots and seed pods.



*Gladioli Snifter* The cup was from a 6 1/2" disk of silver which was spun and then raised. The "legs" are soldered tube and the "feet" are mokume gane. The feet were made with a series of punches and dies. The cup pops off the base and your fingers fit comfortably around it to aromatize your brandy. The base was forged from 1" by 1/4" bar stock and inspired by Mazzucotelli's Gate of the Gladiolus. The dimensions are 5 1/2" by 4" by 15".



*Tipsy Turvy* These are from a 5" spun sterling silver disk soldered to copper bases. The bases were formed from forged 1/8" copper round rod and have a brass brushed black patina. Set of four (5 1/2" by 3 3/34"). These were designed to be an alternative to the perpetual conical martini glass.



*Thanks to my instructors John Marshall and Roger Horner for their assistance and to Dan Hahn for the photos.*



**HOW I BECAME A BLACKSMITH**  
**IN THE**  
**GREAT WAR OF THE REBELLION**

**BY**

**BOB RACE**





**Race Reenactment Smithy: Note similarity of tent to original photo**

Some of you may remember back in the late Fifties and early Sixties the coverage of the American Civil War Centennial and the extensive amount of articles presented by Life Magazine which had well-illustrated colored drawings. I spent hours reading and picture scanning through those periodicals. However it was not until the mid-Nineties that Shirley and I became active in the Civil War reenactments in Oregon, and we have found ourselves constantly going through the slow process of gathering data so that we may present as convincing an interpretation as possible.

I read somewhere that there are more books about the American Civil War than any other war in history, but cannot say for sure this is a fact. Coming across written documentation on things other than battles, weapons, uniforms, casualties, politics, and religious fanaticism has been rather slim. Such things as the civilian activity during the years of the conflict are rarely covered or only take a few chapters out of some of the weighty volumes published even today.

Two of the things that I never thought of prior to our involvement in the reenactments was the presence of the Civilian Camps or Camp Followers and the camp-following peddlers known as Sutlers. Here, in the Northwest, neither of these were predominately present at reenactments until perhaps the early Nineties when the wives and kids of the participants wanted to become involved with Daddy. "He's having a good time and we want part of the action!" is probably what happened when the spouses and children saw father out there on the field getting all that applause from the audience. Let me explain a little more about the non-military things before I get into the blacksmithing.

### **The Civilian Camp**

At a reenactment Shirley and I chatted with a woman with whom I used to work and, after a

discussion of her demonstration of making paper cartridges, we talked about old times and eventually things came around to our present hobbies of basket-weaving and blacksmithing. She eagerly became enthusiastic and strongly suggested that we come in as demonstrators in the Civilian Camp. It seems that they like to have activities going on between battles so that spectators find more things to see and encouraging them stay around for the second battle in the afternoon. Now there is almost as big a contingency of Camp Followers as there are soldiers demonstrating before the public. Apparently, in the 1860's the Camp Followers sometimes outnumbered the troops. There are many period pictures of civilians (mostly wives and children doing laundry and gathering wood or even foraging for the troops) shown in the vicinity of the military camps. Unlike today's army, many of the units were sponsored by religious groups, merchants, counties, states and even individuals, (like my favorite general—Confederate Nathan Bedford Forrest). Because of this, both Union and Confederates had camp followers, many of whom only tagged along because their husbands or family relatives were active as soldiers.

### The Sutlery

There was an additional group of "tag-alongs" referred to as the Sutlery. These folks were there only to make a profit, but did it the hard way by following large troop movements rather than contracting to the government. Sutlers ranged from seamstresses to embalmers; from photographers to whiskey peddlers; and from carpenters to blacksmiths. The reenactors have a

separate area for both the Civilian Camp and the Sutlery. This modern Sutlery has been set aside in a special area because they sell everything from video tapes to hot dogs and so the restriction on them covering period correctness does not apply, but most are pretty good about selling items that reflect the mid-1800's.

### The Blacksmiths

Finding written documentation covering blacksmiths during the Civil War has met with many dead ends—but the same is true of other trades people. I suppose it is because that trades people were common place and not really too high on any social register, and also it would be like asking someone today to talk about the significance of a grocery store or a gas station. They are all over the place, everyone knows about them, so why bother to waste expensive paper on such things as blacksmiths, carpenters, mill workers, miners, mule-skinners, tailors, when there are battles that are killing off two percent of the male population for a supposedly just reason of fighting for states rights. I even wrote to our Nation's Army Academy Museum at West Point inquiring about information regarding blacksmith involvement in either the Revolutionary or Civil War and received a letter saying, "Sorry, but our library has no information." One would think that at least one cadet would choose to write at least a short paper on blacksmithing. Wouldn't you?

I have found several pictures of blacksmiths standing by anvils, or a military photo showing a large forge on a great ship, but there seldom is a caption. There is even a drawing of a caisson converted over to a forge with a pear-

shaped bellows and text saying it carried a large number of horse-shoes for supplies. But little is mentioned about the men who did wagon repair, cannon upkeep, or any of the metal work needed to maintain an army or navy unit. There is a reference to an artificer, or one who is the mechanic of an artillery unit, and that is about the extent of the information I have found so far.

### Period Correctness

One of the things that the Civil War reenactors seem to pride themselves on is being period correct. Not perfect, mind you, but I have to give them credit for being more period-correct than any other group I have come across. The soldiers are wearing wool uni-



forms and organize themselves after the 20<sup>th</sup> Maine, 1<sup>st</sup> US Cavalry, Company A (complete with horses), the 1<sup>st</sup> Virginia, Rockbridge Artillery (complete with full sized cannons), plus several other units. They each have their own commander and amazingly march quite well in formation. My favorite, though, is the Oregon Fife and Drum Corps of whom I have never been tired of listening playing Dixie, Yankee Doodle, other military pieces popular during the War of Secession. (Once we were down at a Mediaeval encampment and some folks were really trying to be period-correct, but many had their nylon tents and plastic pegs right next to their canvas abodes. The best thing I saw was a young man, (and this was in mid-July) who was walking along wearing a full suit of armor that had wool underlining, and carrying a 20# broad sword, all of this plus *wearing his Nikes with flourescent stripes?!*)

### Our Participation

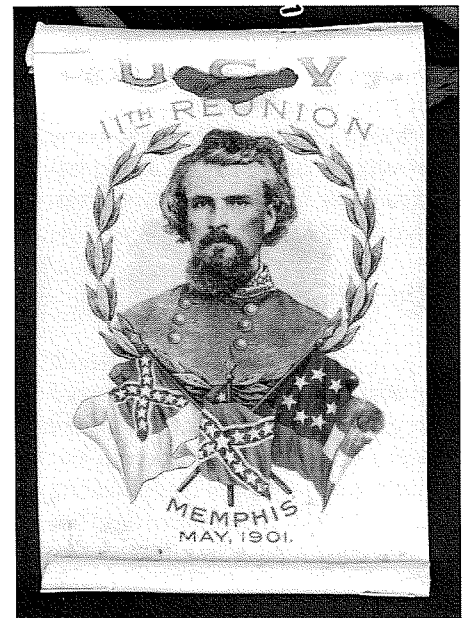
Shirley and I were primarily invited because of two things. First, our friend was enthusiastic about having some more people active in the Civilian Camp, especially when we would be demonstrating some of the crafts that were needed to maintain the small communities that were near the troops. The second was the fact that there was no one making baskets and the only blacksmith participating at the time was there just to sell things, was with an artillery unit, and not in the Civilian Camp. When he was not on the battle field he was over in the Sutlery pushing his wares, and they were looking for people like Shirley and I to be active during the time between the morning

battle and the one held in mid-afternoon. It is amazing how many people come in and visit the Civilian Camp, they really come in and ask questions or they drop by to tell you how much they know about the Civil War. We believe that we actually learn more from visitors than one would realize, for there have been many occasions where they speak of their relatives who actually were involved in the conflict. During Labor Day of 1999 there were over 1200 participants in both the military and civilian camps.

### Our Setup

Not wanting to invest heavily in something we were not sure about, we decided to purchase a fly, which is nothing but a sheet of canvas, draped over a ridge pole and secured with ropes on two sides. It is like a tent with no walls or ends. It's purpose is just to keep the rain or the sun off fragile items, (like our bodies, when one is over fifty, feeling comfortable seems to be more important than it was years ago). I was surprised how much room it covered and at our first reenactment I was even ignorant enough to put the forge just inside the ridgepole support. It wasn't so much that the fire was a problem, but our poor WHITE fly seemed to darken with soot as the hours went by. One of the first things we learned quickly was that only the bare minimum of stakes does not cut mustard. This particular reenactment was down at Fort Stevens State Park where the Columbia flows into the Pacific and one of the things they have there is something called wind. The first thing that happened was that this phenomena called wind came along and gave an upward push on the canvas, which went higher than the pins on the ridgepole. It be-

came offended and decided to lie down on the job. This ticked the canvas off because of lack of support and it too decided to go on a sit-down strike. The forge decided it had to get involved and told the canvas it was not going to get out of the way and stayed put. Fortunately the fire had died down enough that I was able to prevent all but a small scorch to the canvas. This was Saturday and several people came to our rescue. We managed to get the ridgepole back up under the canvas and someone suggested that we throw an extra rope or two diagonally across the fly to prevent a repeat performance. At least I had sense enough to move the forge outside as there was little threat of rain that weekend. But Sunday was even less kind than Saturday, for no matter what was done to anchor down that fly, it simply decided it wanted little to do with that ridge pole. This time I happened



**Confederate General Nathan Bedford Forrest**



to be talking to a man who plays the part of a chaplin and he was going on about the righteous causes of the war when I noticed that Windy Wales was back at telling his tales under my fly again. I rushed over a hundred yards at full speed, (well as fast as a mid-fifty-year-old could muster) and got there just in time to have the canvas give one last heave and free itself of the dreaded ridge-pole. I managed to hang onto to one of the support poles and Shirley had hold of the other—now what to do? Did you ever hear of the 'marines to the rescue'? Well, it happened here. There was a small contingency of Civil War Marines about twenty yards away and they saw our plight. Without hesitation they were up on their feet, dashed over and helped to re-secure our poor fly with extra ropes to its rightful position, and we remain grateful to this day for their fast action.

### Basket Making

One thing for sure is that I am a very prejudiced person, but even if I weren't I would still say that Shirley makes the most beautiful baskets. The symmetry is near perfection and the weave is very tight and even. Her skill level is reflected in the fact that she has only come home once or twice without selling all of her baskets, (usually most are gone the first day) and there are always orders for more. (I wish I could say that about my iron items.) Women sit down and ask her endless questions on how she is able to get certain patterns, and occasionally there will be some man asking advise on how to get started. Although there are as many books on basket weaving as there is blacksmith, the docu-



Civil War Period Utensils

mentation on that trade in mid-Nineteenth Century and its relationship to the Civil War is rather bleak. Her only need for demonstrating is a supply of reeds, a bucket of water, and a chair in which to park.

### The Forge

One thing I have been planning is to make a period forge. Mine presently is a true Army forge that they were issuing up to the end of WWII. It is nothing but a square steel box, that is about 24" square and 8" deep; there are four 30" legs which fit into straps on the sides of the box; along the bottom of the box are two dovetail rails into which slip a cast iron tuyere/ash-dump pipe; to this is attached a typical hand crank blower. So far they have let me get away with this later period Army forge. I would like to make one with a bellows, but have not taken the initiative to do so. One thing that I found out about this metal box is that a per-

son has to be careful about cooling things down. I believe it was my second year down at Fort Stevens and I still had not had the nice hood that is on the box now. Noticing that my fire was spreading too much for the work that was being done, a liberal amount of water was applied to the perimeter of the fire and when it flowed down to the hot iron bottom an enormous eruption of steam belled forth. This in itself was not a problem, but the result was devastating to the brainless operator, who had his head close to the situation and it scalded his forehead and cooked his already thin hairline back about an inch! I did not realize what happened until there was this need to itch my brow and all this hair stuck to my fingers. It took nearly three months for my poor hair to get back to its original length. Three years ago a good friend made a hood for the box and that was an extremely worth-while addition as it helps to keep the rain

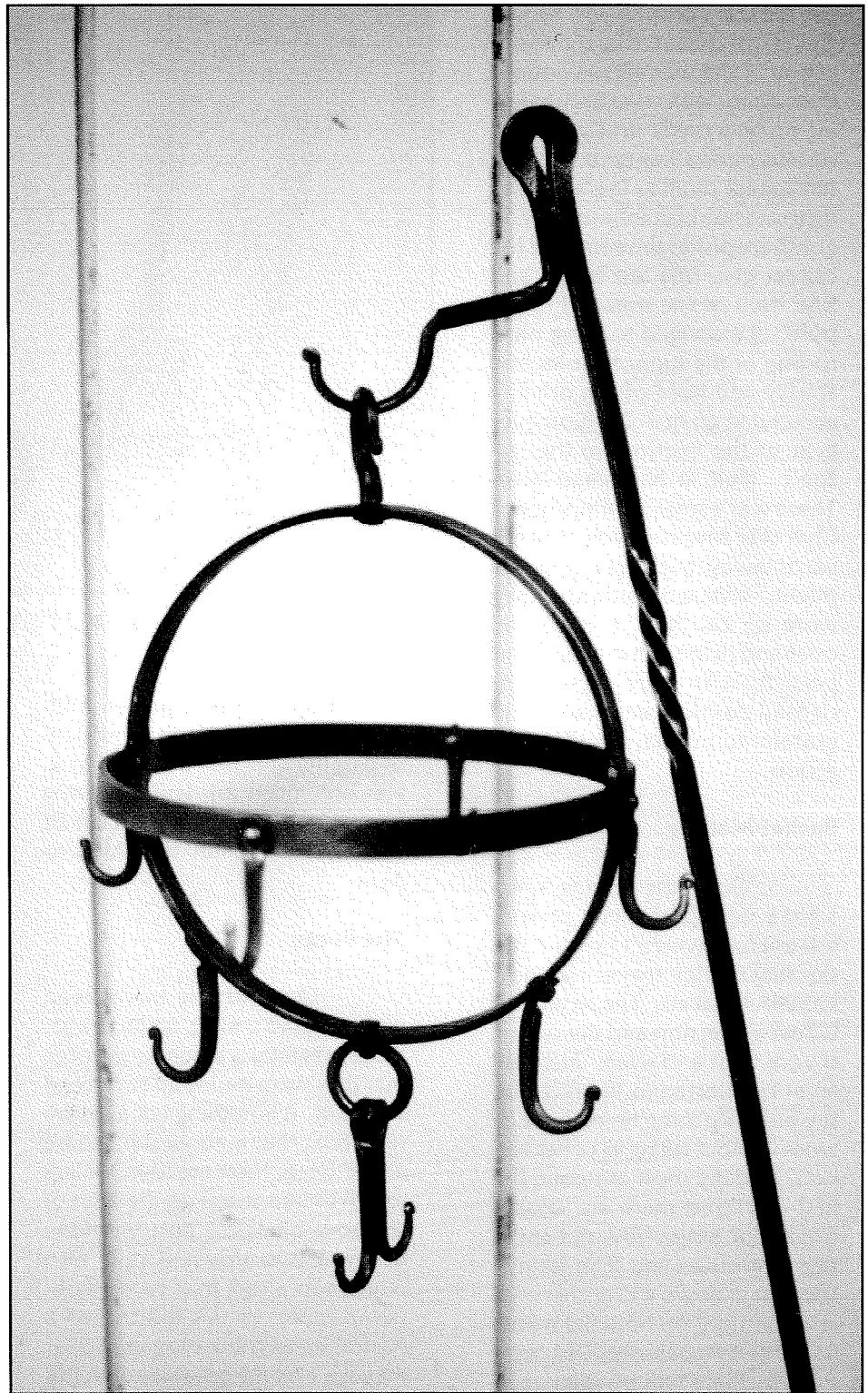
out and guard a little against the wind.

### The Anvil

In retrospect, the anvil that is now being used is probably the most practical for the situation. Number One—my poor body does not like lifting heavy things any more. Secondly, any of the work that can be accomplished will be small, light items, (after all, I am there primarily to interpret) to do any more than that has always proven to be a show stopper. Saying “yes” to making a campfire tripod or even a lantern stanchion seems simple enough, but when one accepts a large, or time-consuming piece, that is when disruption in the camp decides to appear, (like a heavy rain storm, an unusually large crowd, or a granddaughter who keeps running off like an unleashed puppy and needs to be returned to quarters); there is no way the item promised can be finished before one has to pack up and head for home. So I either take orders or apologize saying there is not enough time to complete the project. The anvil is about 80# and is bolted to a stand that is made up of four tapered pieces of 2x12's. This setup has served me well for the past five years and it even has been handy at some of the workshops.

### Hammers, Tongs, & Tools

This too, I try to keep light. I have my regular 2 ½ # and a small ball-pein hammer: that's it. There are five pairs of tongs—1/4 and ½” pozzies, 1/4x1” flat, a pair for thin, flat items, and a small pair of scroll tongs that I use for bending. There is also a small pair of long-nosed pliers, a couple of old files, a nail header, a few punches, and a prick punch.



Stanchion

Of course, one should not be without their Laurel & Hardy, the first for mental support of course. There is also a small post vise mounted on a wooden stand, fire tools and some sort of a slack tub. One of the important items is crowd control, for this there are eight stanchions set to form a twenty-foot square, and through their loops is strung a 3/8 inch sisal rope. The forge and anvil are placed as close to the center as possible—one accident has been enough, and so keeping little kids (some might be eighty years old) back from hot items is very important. We also try to remember to put a bag of crushed ice in our chest, just in case of a burn, as there is nothing worse than trying to explain to a mother why her kid is crying. The iron supply is also kept at a minimum, as no matter how hard one tries to complete a project, along comes a visitor who must have a deeply intense conversation, (and it is seldom about blacksmithing) and I have yet to learn concentrate on two things at once. Because of this reason, I say there is not enough material, and I'll have to do it at home. (Besides, my work looks much nicer if I can take my time.)

### Demands of Reenactors

When we first started, there was little known as what was to be expected. Do we stay away from others because of the coal smoke? Since we are not in the Sutlery is it all right to sell things? Are we Yankees or Confederates? The answers were, "We don't know.", "Yes, I guess it would be all right.", and "We're short on Confederates." The results of our first question was to get in trouble with the Photographer. The woman in charge put him right next to our setup, which

was not really her fault, for the council only allotted a certain amount of space for the entire Civilian Camp and the Photographer did not show up until Saturday morning. All I heard from him Sunday morning was that his eyes were watery all night because of my smoke. This can be a little disheartening when it is one's first time and

we only knew about three people of the six hundred who were participating that year.

We now find that the majority of the reenactors want things other than what is displayed on the table, for they have a specific idea of their own on how things should look, and one can-







# HARPER'S WEEKLY

## A JOURNAL OF CIVILIZATION.

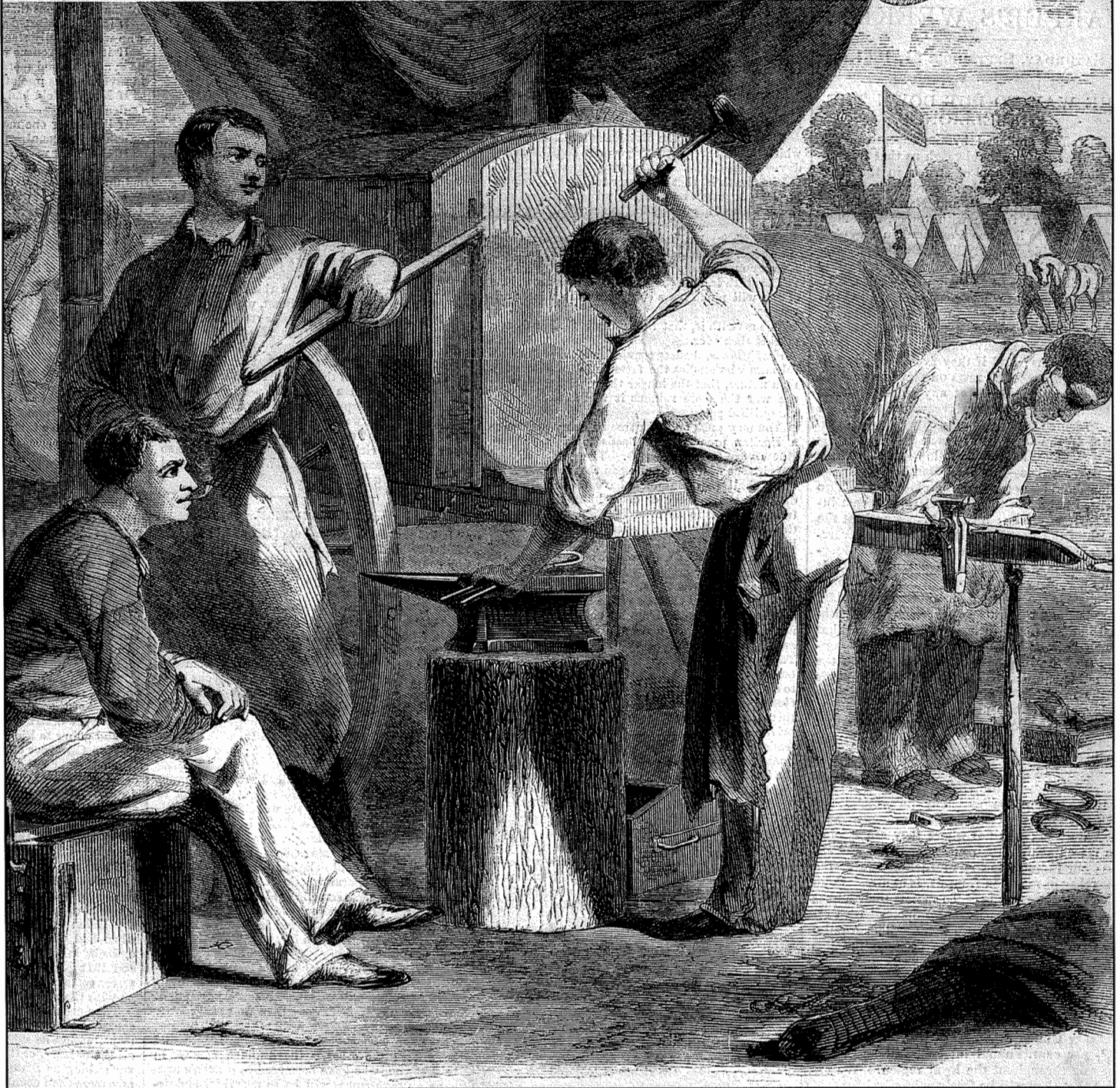


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NEW YORK, SATURDAY, SEPTEMBER 21, 1861.

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not out guess their visions or motives. Even when it comes to something simple like tent pegs they are fussy, and upon inquiry their ideas do not come from research, but what they perceive would look nice with their setup. The visitors are entirely different and if they see something they like there is no haggling, they just pay for it and act happy, claiming they can't wait to show it to their friends or family. The members of the Northwest Civil War Council are very good customers and patiently say they can wait until the next show for me to provide what they want. This is good in a way for the item can be made more to their specifications and we try to meet their every whim and fancy. For all the years we have been going, these people have kept us busy with their particular wants, they have been patient, none have acted disappointed, and they send others to us to have things made. Baskets, large and small, for carrying picnics, bread, eggs, or brood hens, have all been requested. Camp-fire grills and tripods; kitchen tools; fire pokers; tent gear; lantern stanchions have been repeats. But every once in a while someone wants something special like a rifle stand or a flag stanchion that has a company logo—these are the fun things, and it is great to have these types of requests.

How many more years we will stay involved depends our individual interest. We have acquired several new friends and enjoy the camp life that goes on after the crowds leave in the late afternoon. In a way it is like going to our NWBA conferences, but there is a larger variety crafts being displayed, and dealing with a very curious public can be entertaining as well as educational. All in all, we will be going for some time to come.

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### THE ARMY FORGE IN CAMP.

AMONG the many appliances necessary to a complete battery of artillery or corps of cavalry in the field, none is more interesting or picturesque than the ARMY FORGE, a drawing of which we give on the previous page. It consists of a four-wheel carriage, containing in its various compartments all the tools and implements necessary for the outfit of a blacksmith, and can be set up and made ready for operation in the time necessary to cut a block of wood large enough to answer the purpose of a base for the anvil. The front portion, or *limber*, is precisely the same as the limber of the cannon or caisson, being simply a box about four feet long by two in width, in which is carried the anvil, tongs, and other implements, together with a limited supply of iron, etc., necessary for immediate use. On the rear wheels is mounted a box, in which is contained the bellows, worked by a lever on the outside. In front of this, and on the same platform, is a cast-iron ash-pan for the fire, from which rises a sheet-iron apron or back. On the stock is a vice large enough and of sufficient strength for all ordinary purposes. Back of the box is a receptacle for coal, which is strapped fast, but can be removed at pleasure. The whole is arranged in a very compact form, and when on the road occupies no more space than a cannon or caisson, and is drawn by four or six horses. The men ride upon the limber-box, and are members of the corps to which they are attached, being subject to the same discipline, and recipients of the same privileges and immunities. The convenience and advantage of such an attachment is obvious. Let us suppose that on the march a cannon, in crossing a ditch or traversing a rough road, is disabled by the breaking of some portion of the iron or wood work of the carriage. It is drawn to one side, the forge drives up, is unlimbered, and in less time than it takes to describe it, a smithy is improvised, a fire kindled, and the accident remedied without delay to the balance of the battery. When in camp a quiet sheltered spot is selected, and here the forge is unlimbered and the smiths set at work shoeing horses and repairing damages during the intervals of drill and discipline. In case of a sudden attack or the necessity of rapid movement the tools are gathered together, the forge limbered up and ready for the march as soon as any other carriage in the battery.





Kirkstall Forge Hammer supplied to the Sandvik Steel Works in 1863



# Kirkstall Forge: The Rest of the Story - - -

by Richard Postman

On page 74 of my book *Anvils In America* there is a small paragraph devoted to the Kirkstall anvil. Two of these anvils are pictured. I knew nothing more about the company that made these anvils or where in England they were made. From material that I had read connected with the Mousehole Forge I was left with the impression that the anvils might have been made in the Sheffield area because a Kirkstall Forge was mentioned and that was probably who made these anvils.

In October of 1998, while on a visit to England to do research on the Mousehole Forge and Peter Wright, I visited an antique show northeast of Sheffield. Among the items there I saw a set of small hub caps that came off of some type of wagon or truck. On the hub caps was embossed the name "Kirkstall Forge." I recognized the name as possibly being connected with the anvil. I even considered buying them, but felt that the price was higher than they were worth to me. From what I know now I should have bought them.

In 2000 a man I know indirectly through Mr. Ken Wilson, Mr. Leonard Coon, was perusing a flea market near Jackson, Michigan. While looking at some books he came across one with the name, *The History of Kirkstall Forge Through Seven Centuries, 1200-1945 A.D.* Knowing that Ken and I were interested in forges and such he bought the book for \$10 and passed it on to Ken. Later on Ken showed it to me. I recognized that this was the same name that was on the anvils and on the hub caps so I looked through the book to see if an anvil was mentioned. Indeed it was, as well as information on other anvil makers who were indirectly mentioned in the book. You can be sure that I acquired this book.

The Kirkstall Forge, the book says is the oldest English ironworks known. It was established sometime after 1152 A.D. when Kirkstall Abbey was built. To quote from the book, "The monks of Kirkstall Abbey built the forge about 1200 A.D." Anvils were produced from 1798 until 1890, "when the last anvil maker, a Mr. Gregson died."

The inscription on one of the anvils shown in the book reads as follows: "BS & Co., Kirkstall Forge, B.A., 1\*1\*16." The "S" was really a "B" and the "BB"s stand for "Butler & Beecraft", two families who operated the Forge from 1779 to 1954. The book was written in 1945 updated in 1954 by Mr. Rodney Butler one of the owners and a direct descendent of the Butler family. I now know, as of June 2001, that the Butlers were involved with the Forge into the late 1960s. The assets are now owned by an American conglomerate. Too bad!

Kirkstall Forge was located four and one half miles west of Leeds in the village of Kirkstall. From a map of England you can see that Leeds is southwest of York and almost due north of Sheffield.

Kirkstall Forge was not famous for its anvils, although it was one of their enduring products when others came and went. A good number of the anvils apparently found their way to America during the 19<sup>th</sup> Century. In 1777 a canal was opened from Leeds to Liverpool so when anvil manufacturing began at Kirkstall there was no problem getting their product to a seaport except in winter when the canal might freeze up. The canal also ran very close to the Forge and anvils may have been exported from an early date.

The book says very little about their anvil except that as other products were dropped and new ones added anvils continued to be produced. We might say that they were the bread and butter product for almost 100 years. A letter written in 1878 to their customers saying that the Forge was closing down its engineering department reads as follows, giving an idea of the size of their operation. "We beg to announce that we have

entirely discontinued the Engineering branch of our business, consisting of the manufacture of Steam Hammers, Engines, Boilers and Bridges and Girder Work, Turntables, Stationary and Travelling Cranes and Railway Wheels and Axels . . . and continue to manufacture and expand the manufacture of best Yorkshire iron railway ties and axels, forgings and bars made entirely from cold blast pigs . . . our patent rolled shafting, . . . arms and axels of all kinds for road vehicles finished complete, also Anvils." The letter also states that they were contemplating producing Bessemer Steel "of special quality," but this did not happen. Anvils must have been making a profit to be included in this list.

The book has an appendix listing a summary of those employed by Kirkstall Forge in 1855. Of 840 employees only six worked in the anvil shop. It is interesting to note how the employees were distinguished by marital status and age. It also gives an idea of the products produced at the time. The two anvils pictured in *Anvils In America* were most likely made about that time.

There are 265 pages in the book with prints of some of their products and photos and paintings of many of the operators. I say operators because the property in most of England was owned by absentee landlords well into the 19<sup>th</sup> century. The Kirkstall area was owned the Lord Cardigan family (cardigan sweaters) and the operators or lessees of the Forge and farms in the area paid an annual rent set by the landlord and his agent. The lessees usually dealt only with the agent. The book also shows various layouts of the forge at different time periods to show its growth.

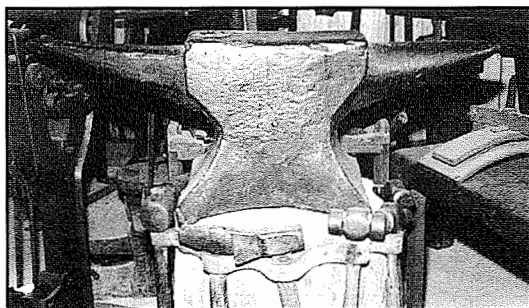
How a copy of this book arrived in this country is anyone's guess as it is a limited edition meant primarily for persons connected with Kirkstall Forge. As of this date there is only one other book known in this country and it is in a college library.

Now for "the rest of the story."

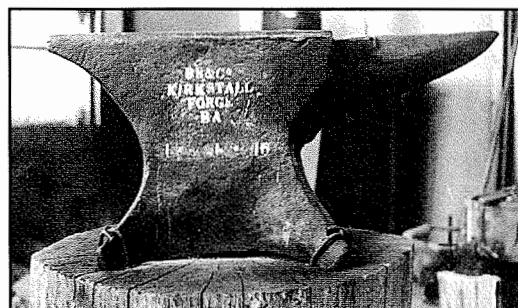
I have an "anvil friend", Page Thomas who is the head librarian at the Bridwell Library of Southern Methodist University in Dallas, Texas. In our correspondence he mentioned at one time that he and a colleague were doing research on the life of John Wesley (the founder of Methodism) presumably to write a book. They sometimes traveled to England to pursue their research.

In the book on Kirkstall Forge it says that the Butlers and Beecrafts were "early staunch supporters of John Wesley" and that he often preached in the Leeds area. On one occasion Wesley was preaching in the village of Horsforth close to the Kirkstall Forge and "was attacked by a mob and driven out of the village and took refuge in a chamber in Kirkstall Forge, which room is still shown as Wesley's Parlour." Knowing that Page was interested in John Wesley I photocopied the material pertaining to Wesley and sent it to him. I felt that he would get a chuckle out of the fact that John Wesley was mentioned in a book about a forge.

I soon received a reply. It seems that he knew a great deal about Wesley's troubles at Horsforth and his taking refuge in a forge, but the name of the forge is never mentioned. Page and his colleague had searched for years to find the name of the forge but without success. That the answer to their quest should come to light because of some anvil research amazes me.



250-pound Kirkstall double-horned anvil



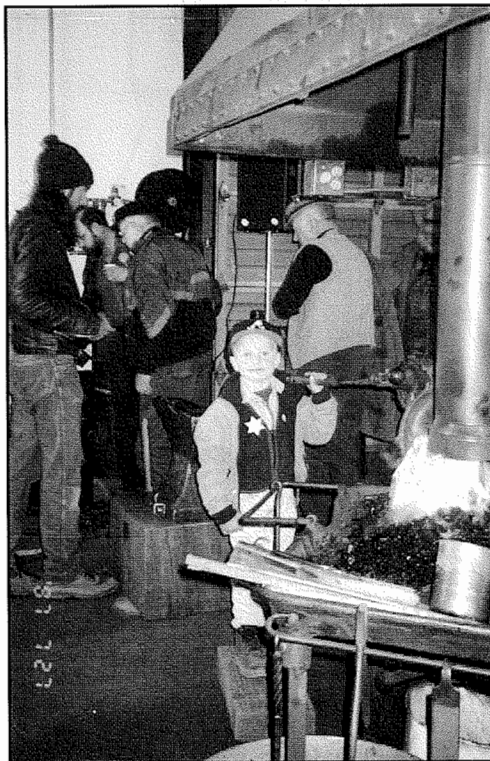
150-pound Kirkstall anvil



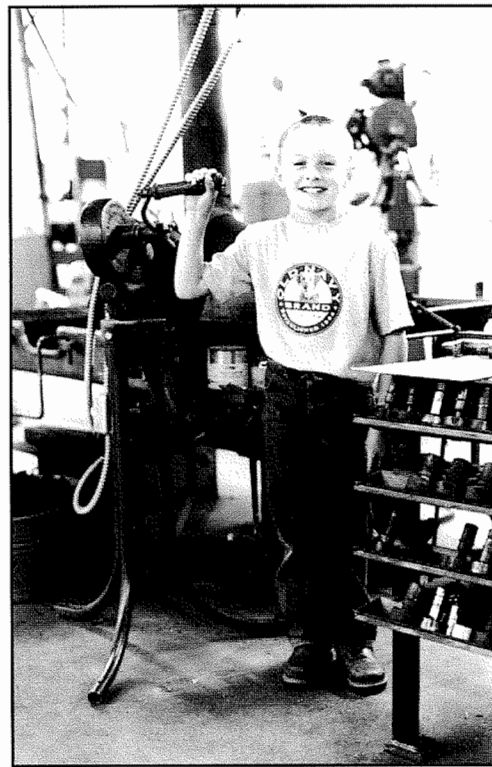




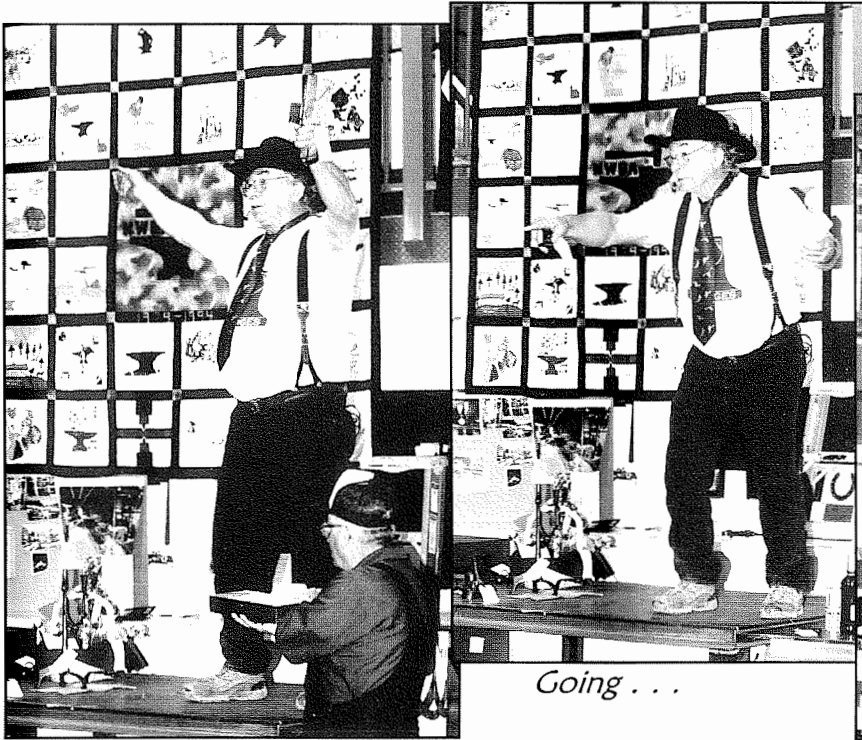
*Sisters, Oregon May, 2001*



*Hayden Wester Spring Conference 1998*



*Hayden Wester Spring Conference 2001*

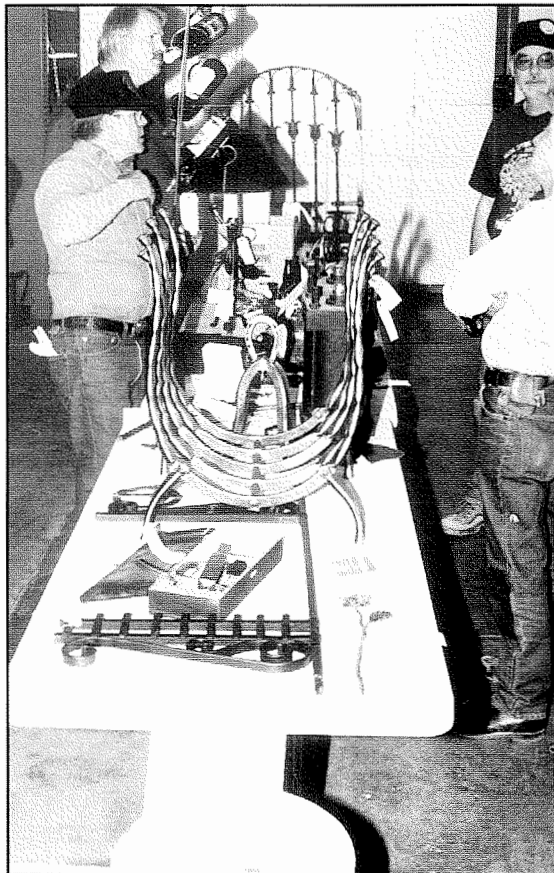


Going . . .

Going . . .



Gone!



Messrs Sarver AND Elliott

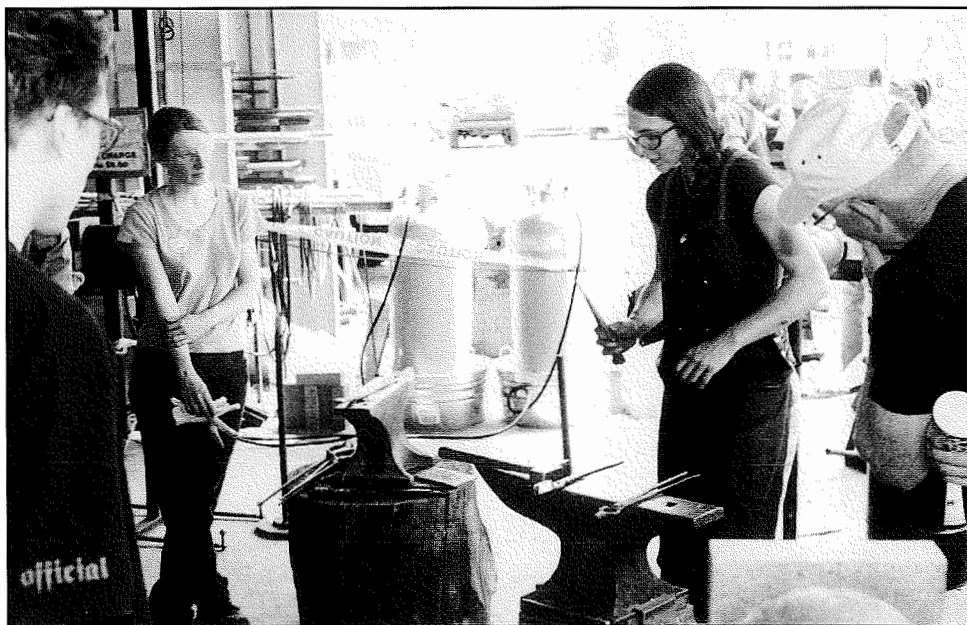


Lorian Soto steps up to the plate

Black Dog

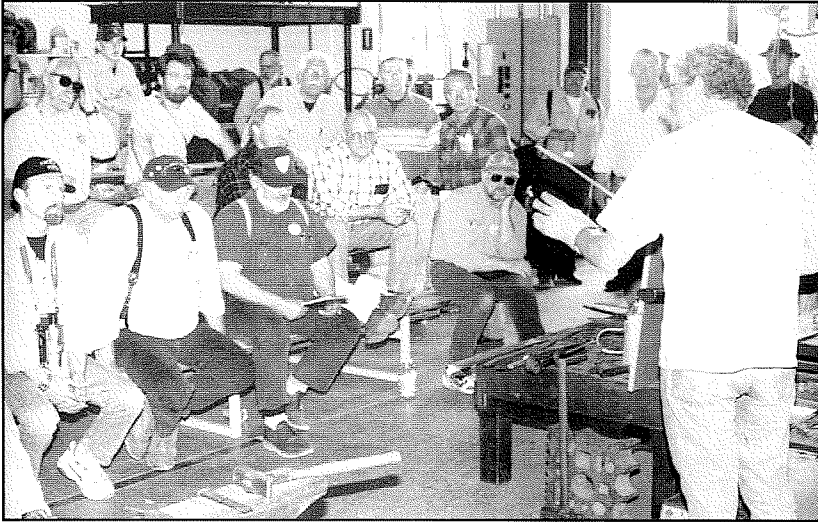


*Our Gang!*

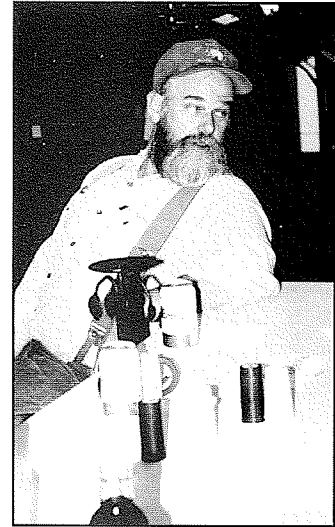


*Sarah Grace Parker Demonstrating*





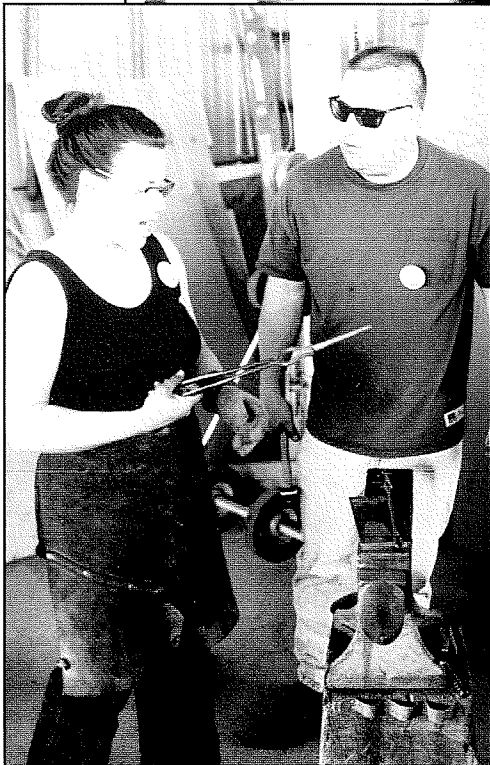
Joe Elliott, Demonstrator



Refills??



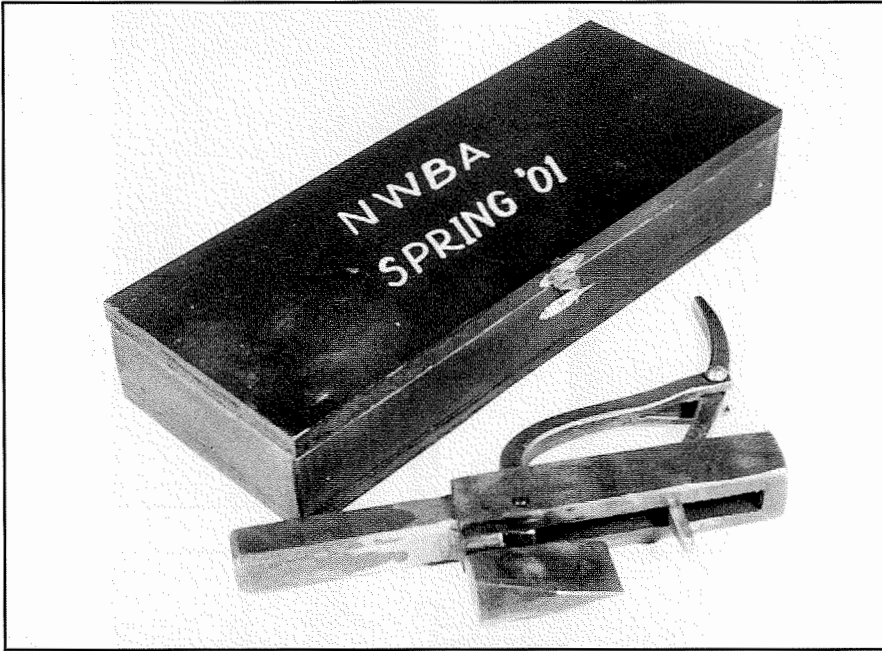
E.A. Chase



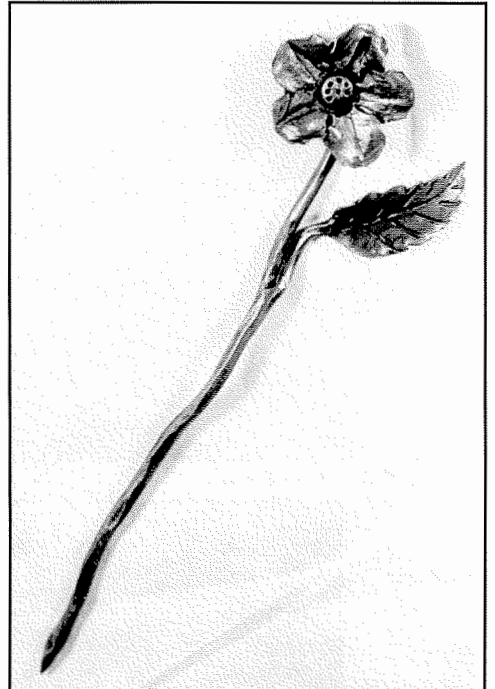
Lauren Osmolski, Demonstrator



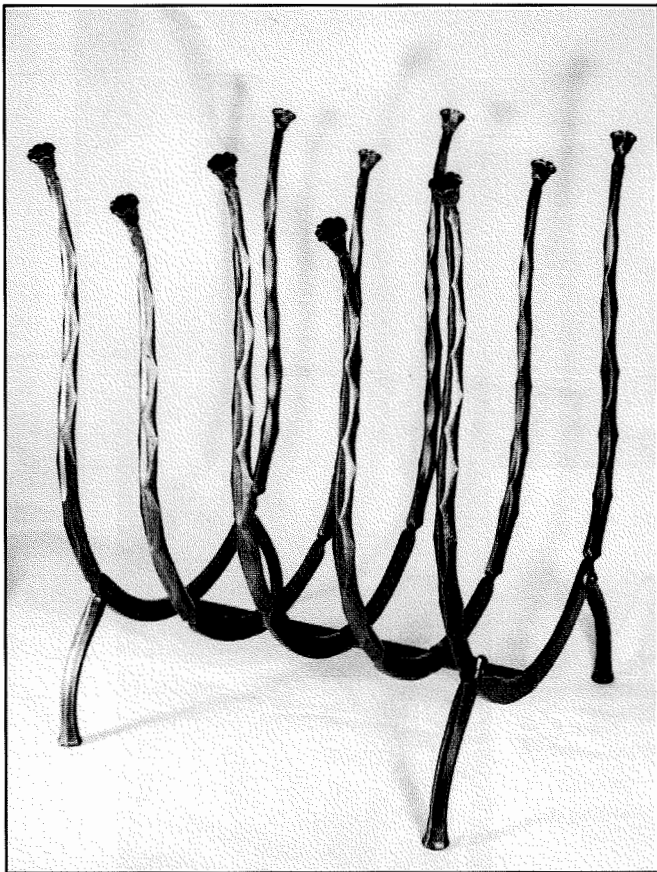
Men in Kilts



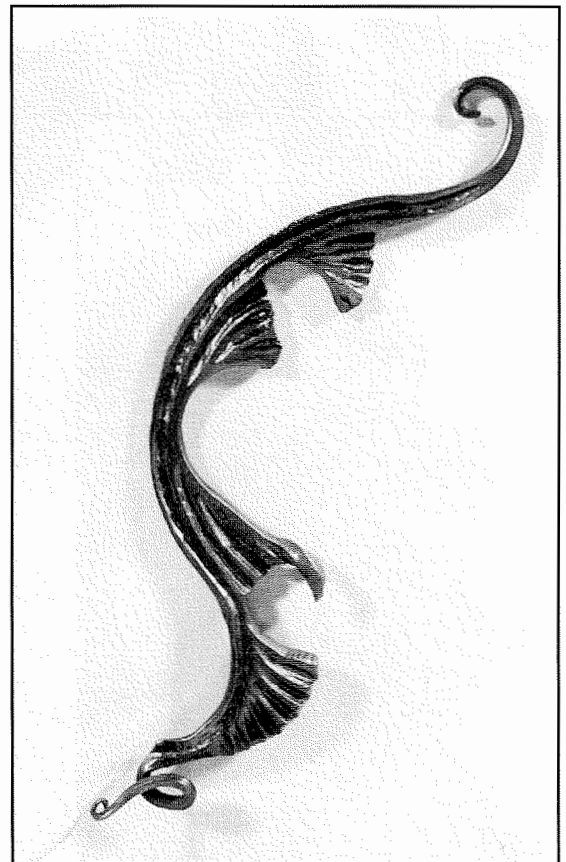
*Bob Race Nail Making Station*



*Terry Carson Flower out of One Piece*

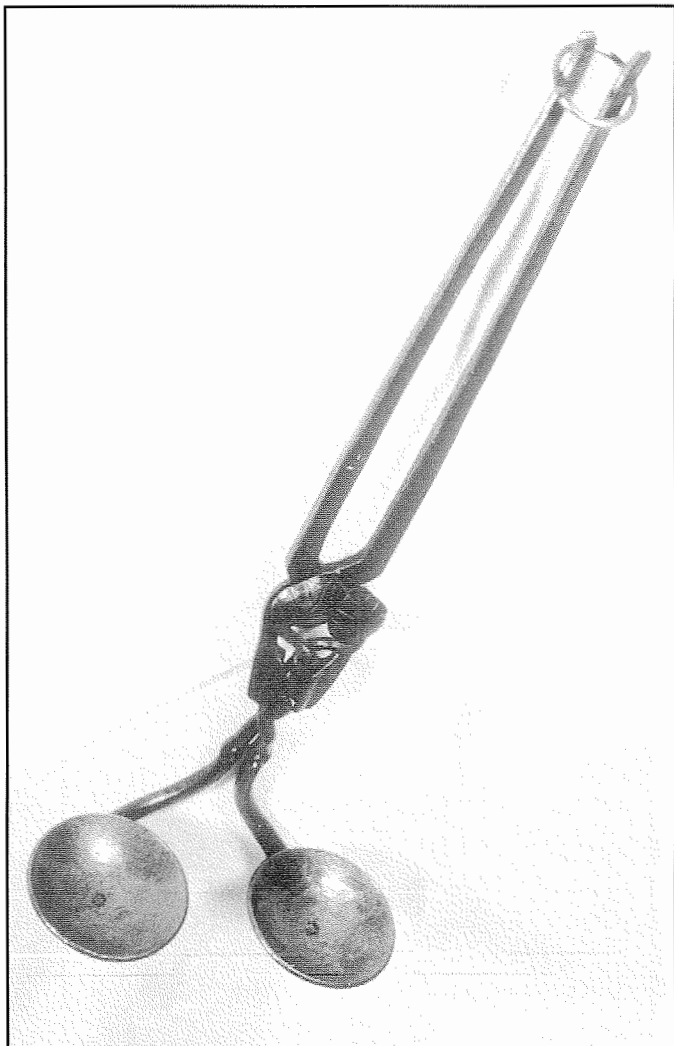


*Laura Goemaat Cactus Flower Log Bas*



*Jim Hatmaker Doodle Piece*

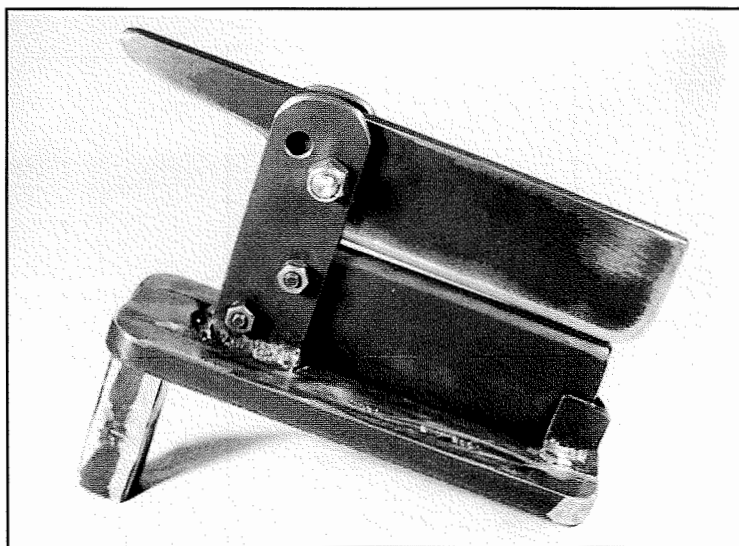




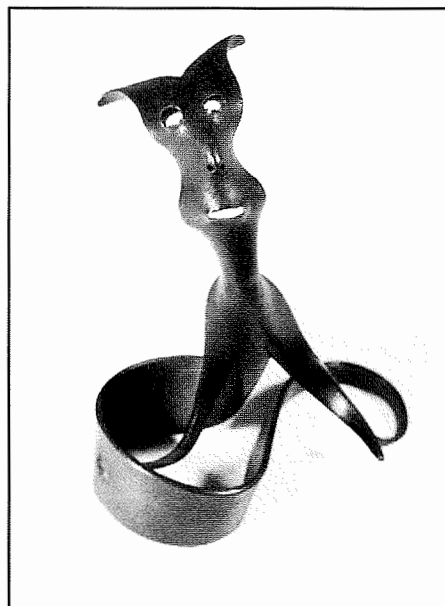
*Elijah Burnett Tongs for Man, Candle Holder for Women*



*James Marson Horseshoe Bell*



*Tom Richards Fuller for Squashed Fingers*

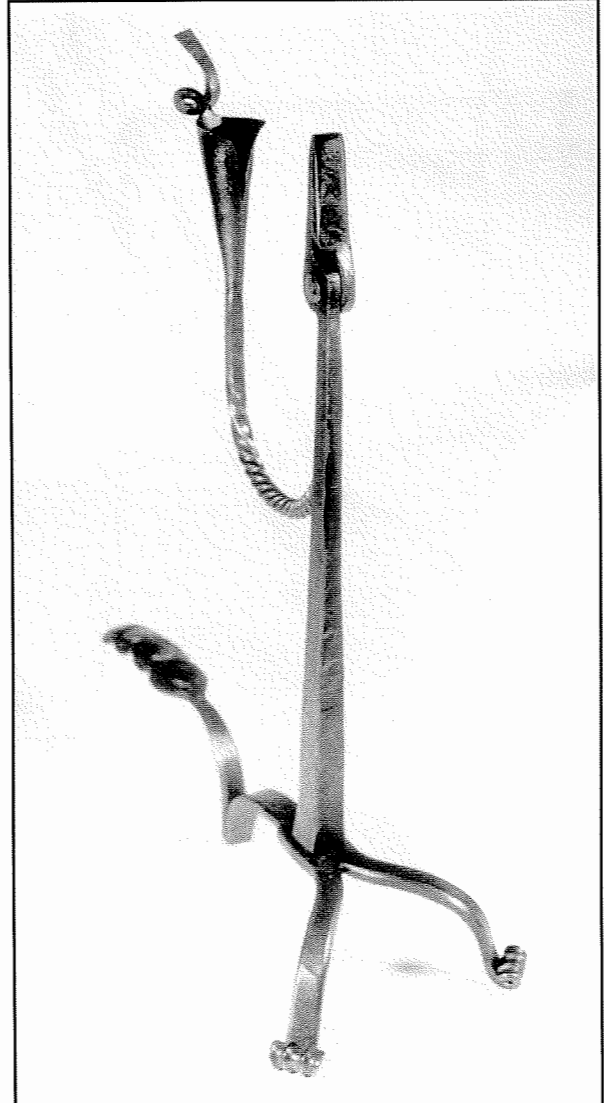


*Dave Thompson Fire Spock*

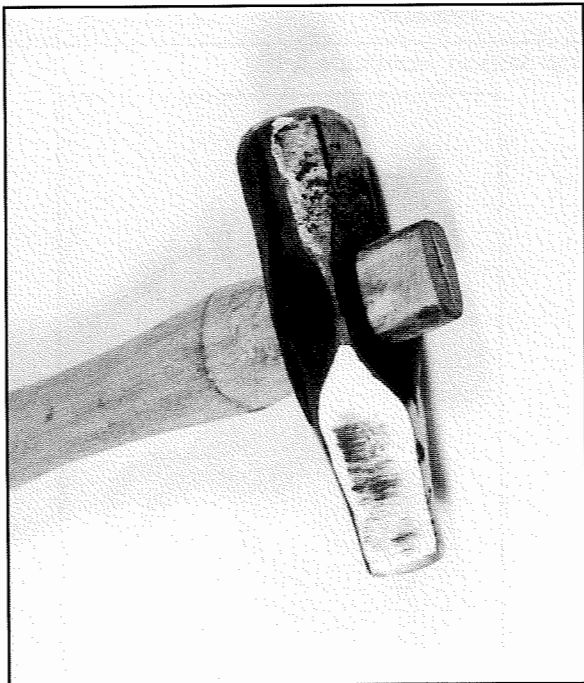




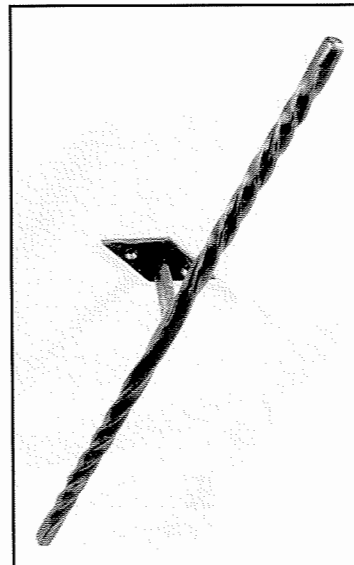
*Bill Duff Wall Grouping*



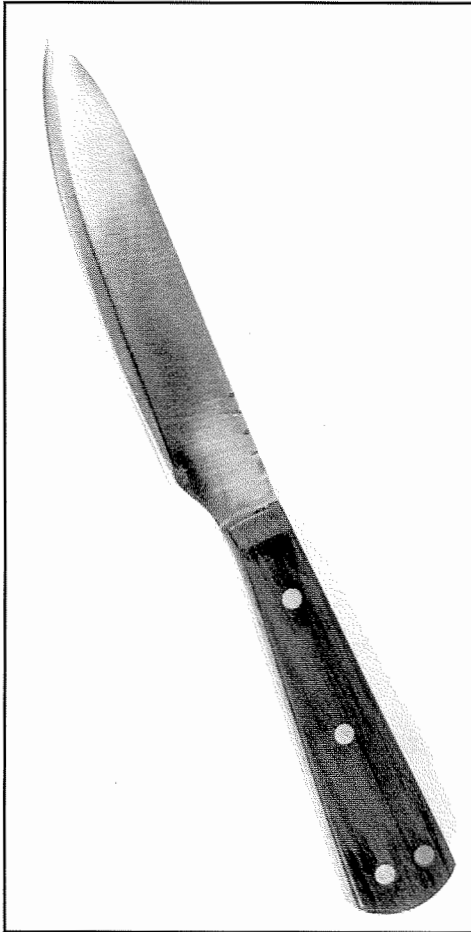
*Jerry Culberson Rush Lamp*



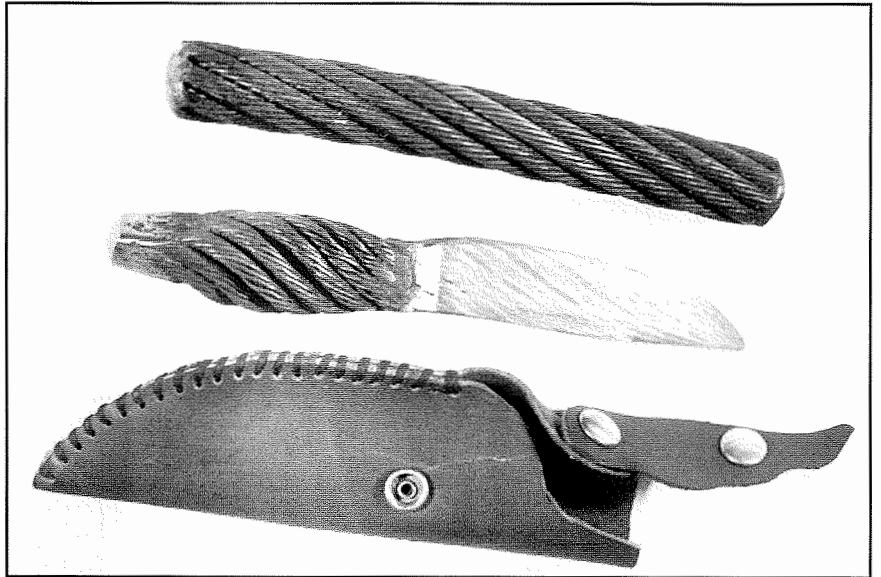
*Bill Apple Walking Chisel*



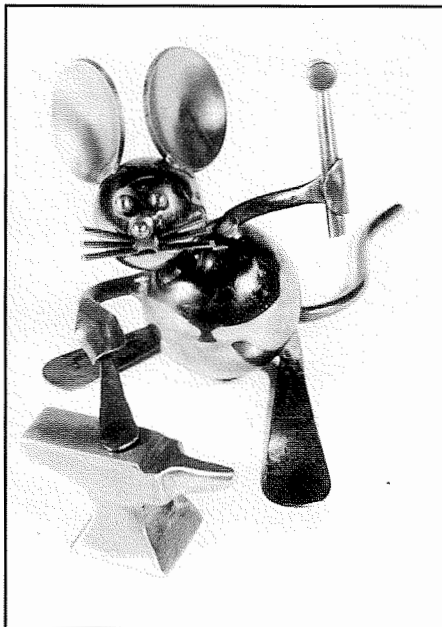
*Jeremy Lewis Towel Rack*



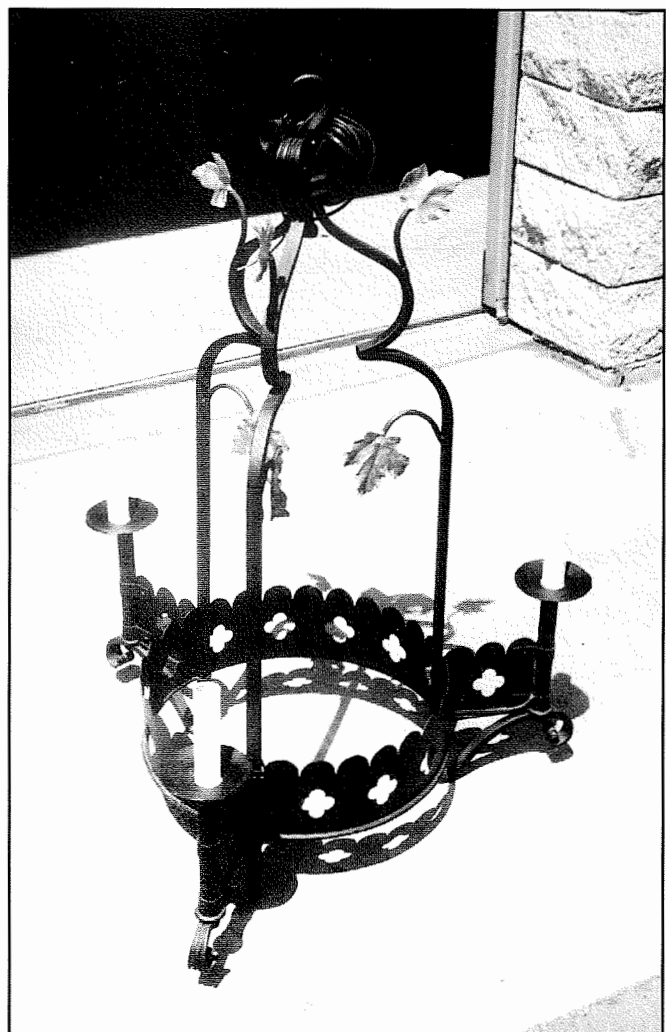
*Eric Grip Potato Digger Rod Blade*



*David Lisch Cable Knife Damascus and Kit*



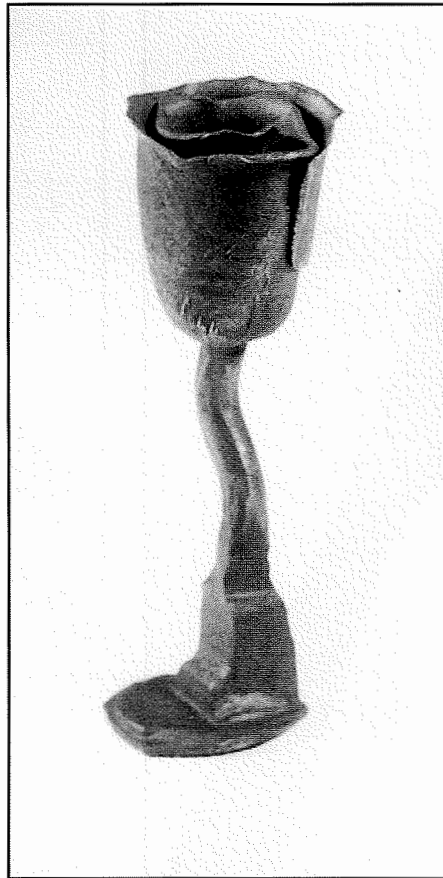
*Mike Statkus Blacksmith Mouse*



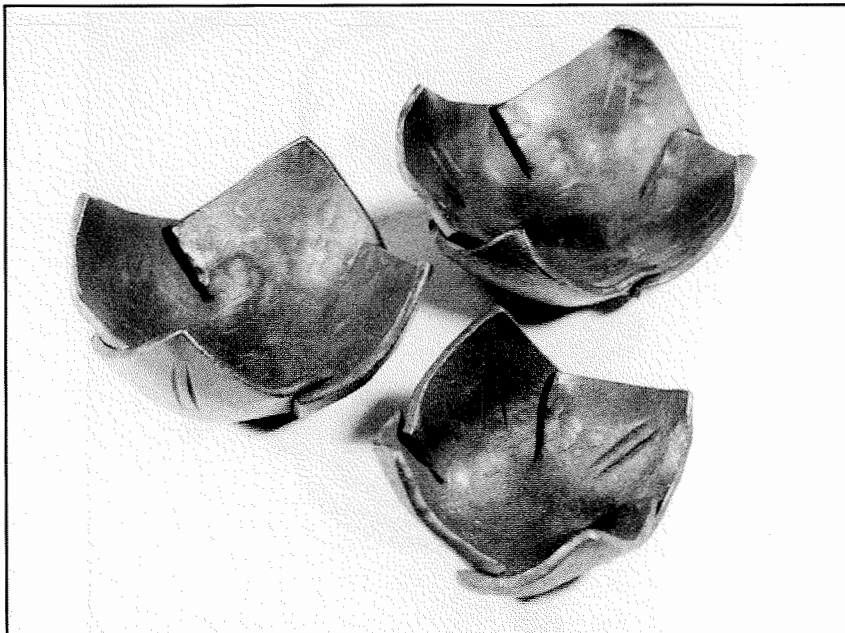
*Tom Richardson Chandelier*



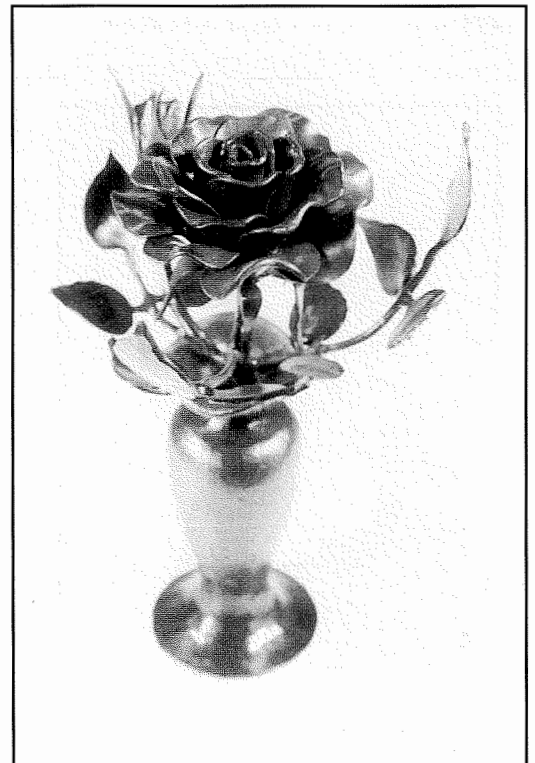
*Jim Griswold Door Knocker*



*Jerry Nielsen Railroad Spike Rose*



*Andrew Blakney Three Dishes*

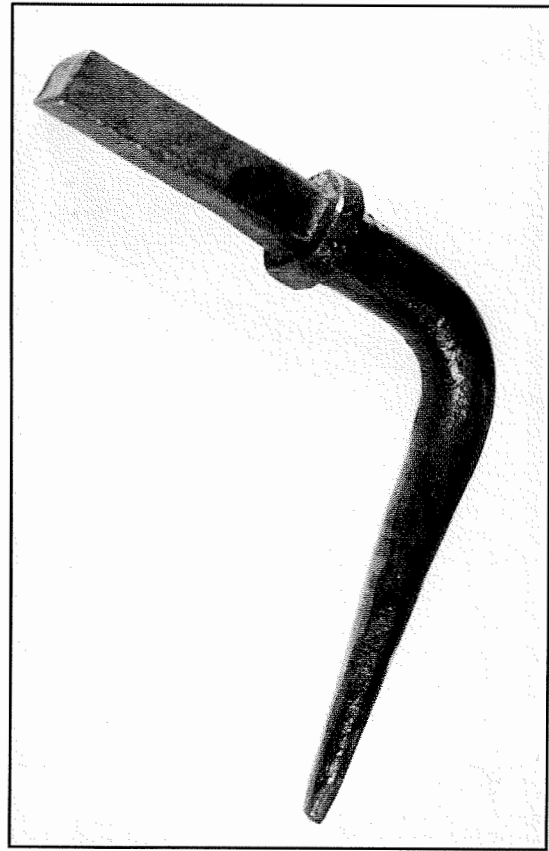


*Bob Watts Rose in Vase*

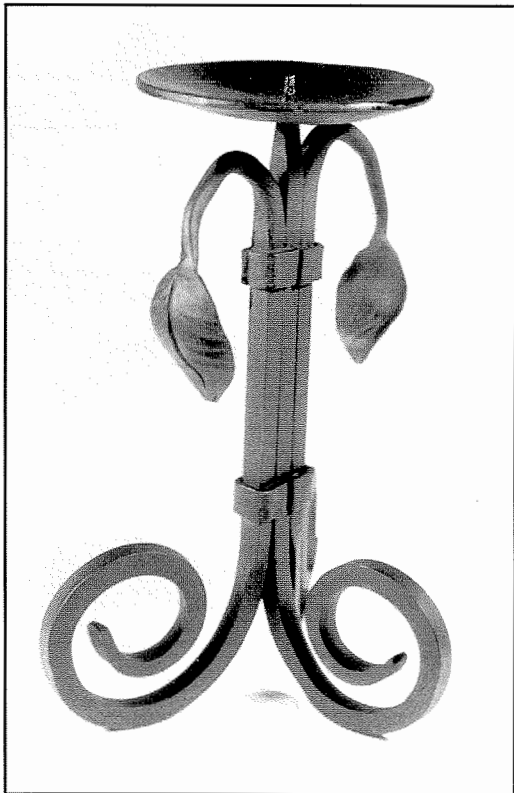




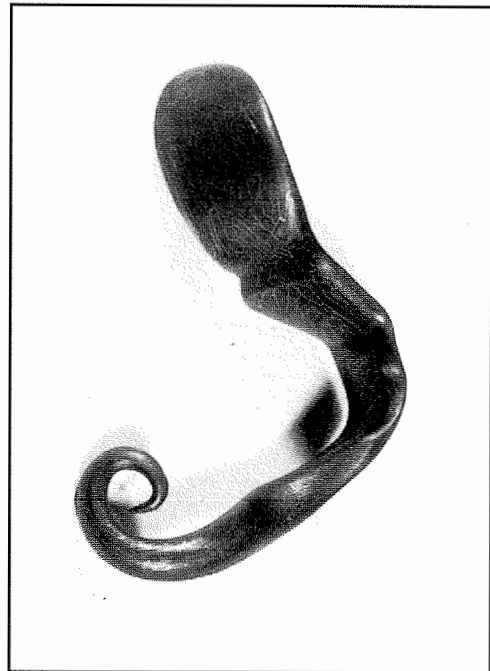
*Mojave John Scroll Opener*



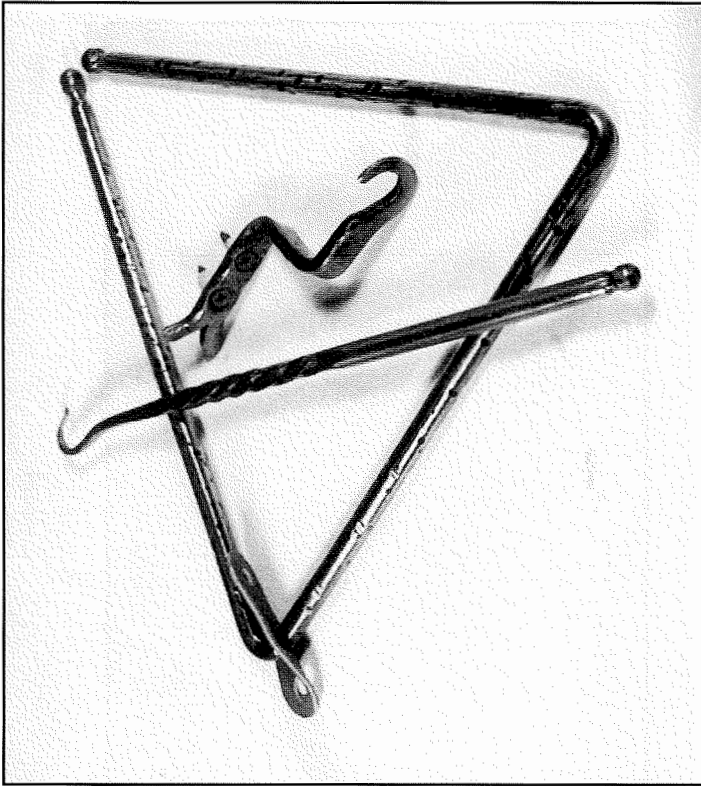
*Jesse Brewer Anvil Bick*



*Martin Gabbert Candle Holder*



*Wayne Goddard Wire Damascus*



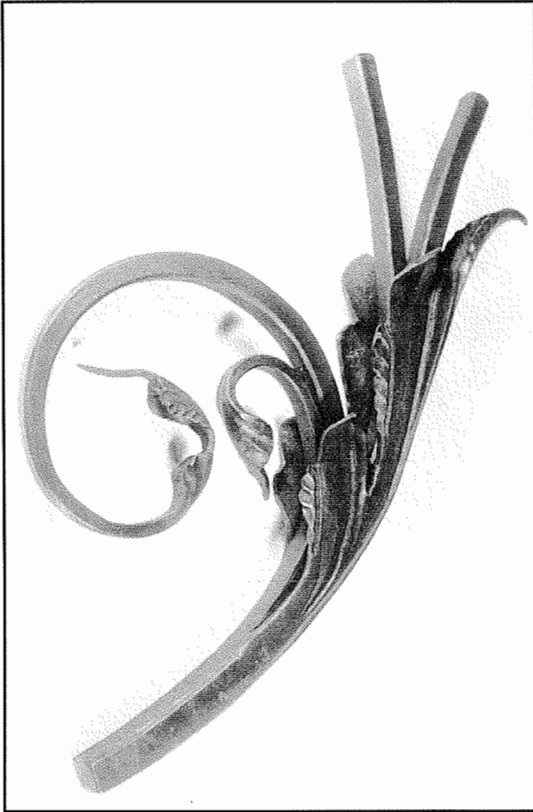
*Larry Rose Dinner Bell*



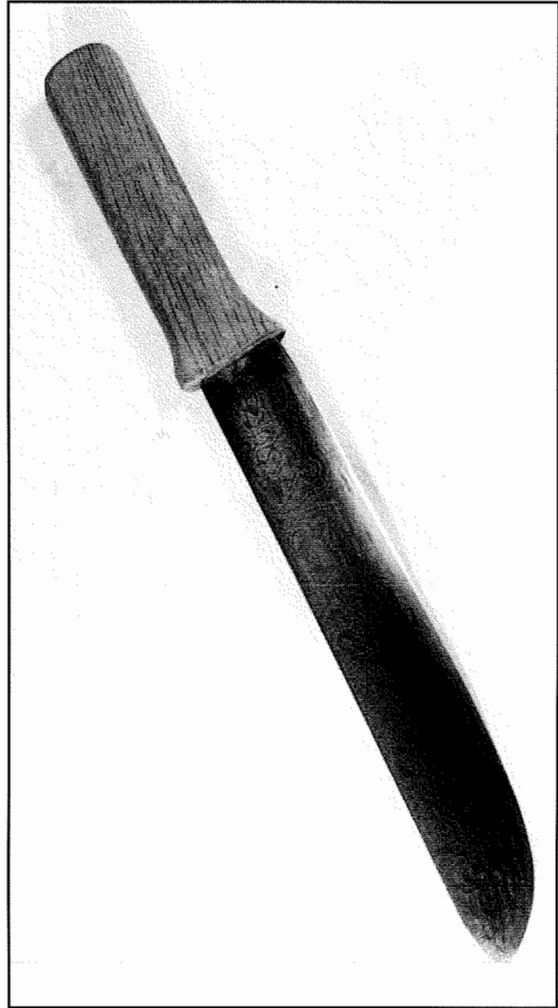
*Ken Williams Lamp*



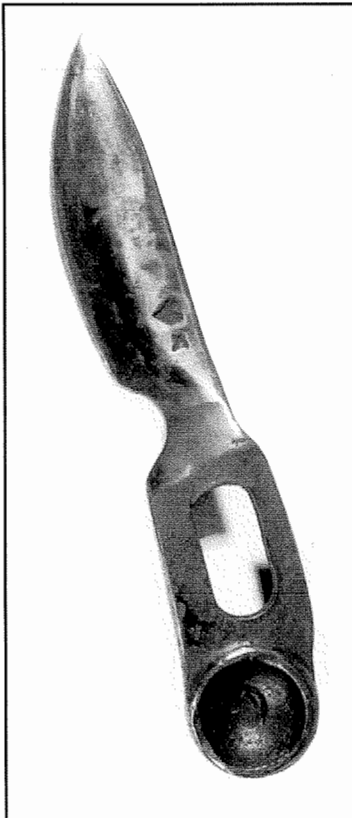
*Jerry Nielsen Bird Lamp*



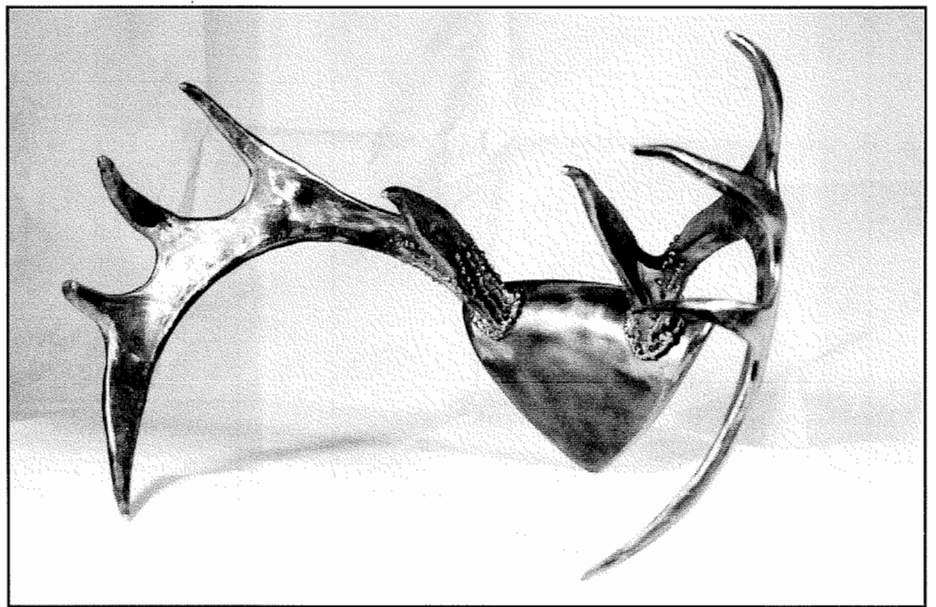
*Maria Cristalli Forged Sample Pure Iron*



*Darrell Gehlsen Pattern-Weld Knife*

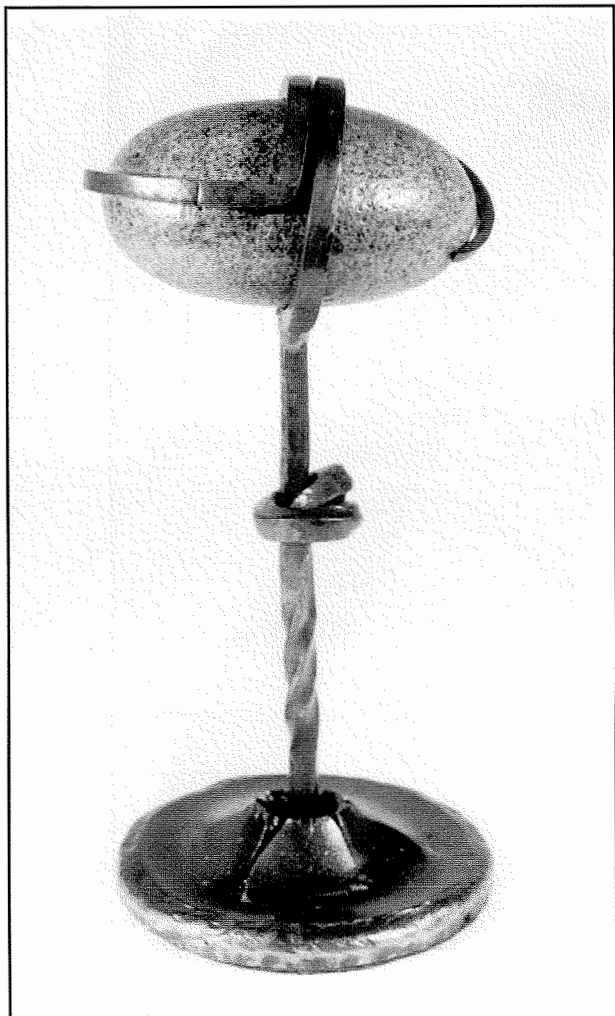


*Mojave John Corn Binder Knife*

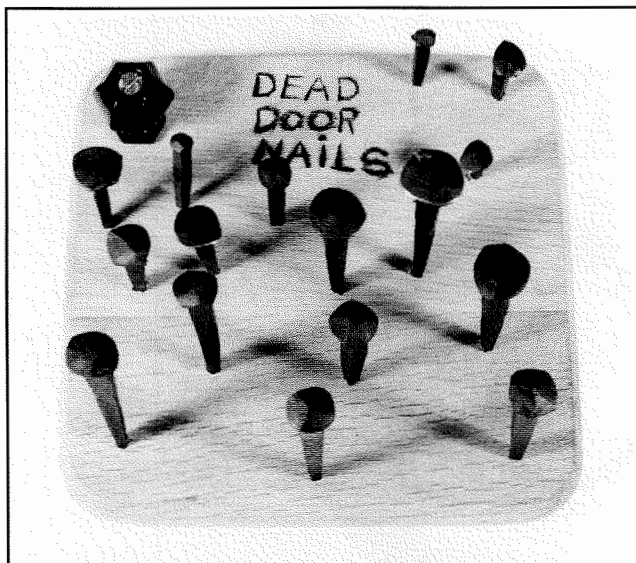


*Bob Watts White Tail Deer Antlers*

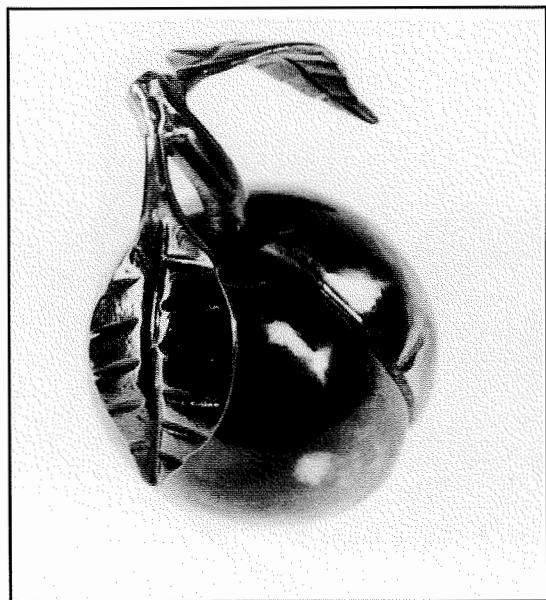




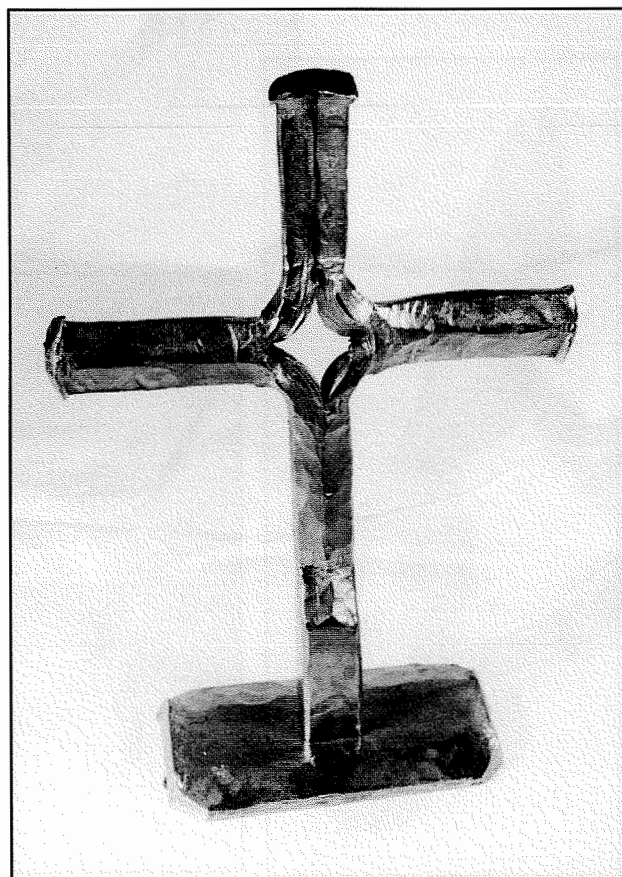
*Kris Ketchum Caged Rock*



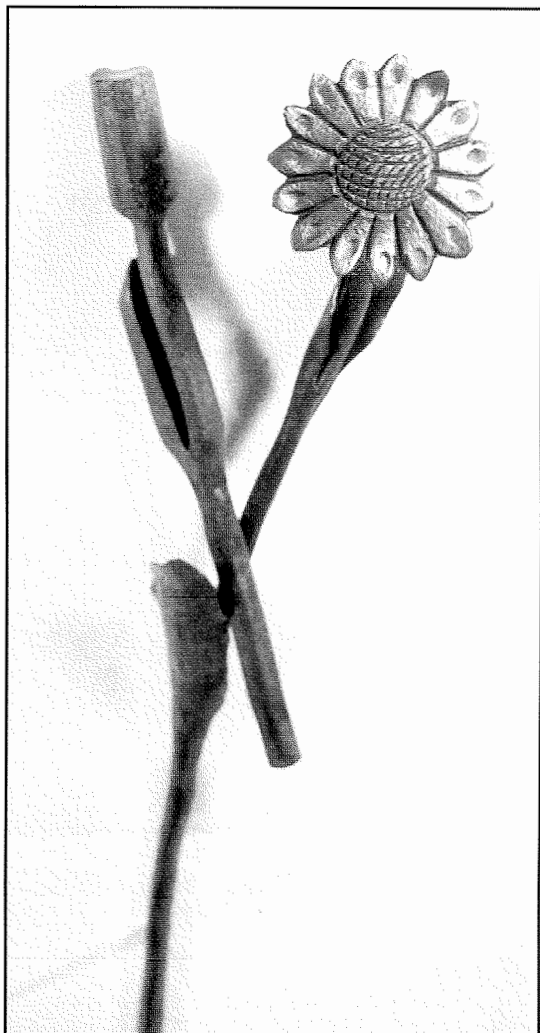
*Mojave John Dead Door Nails*



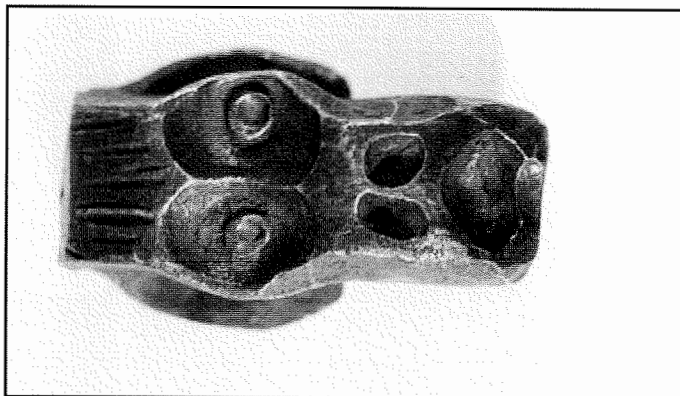
*Kris Ketchum Forever Peach*



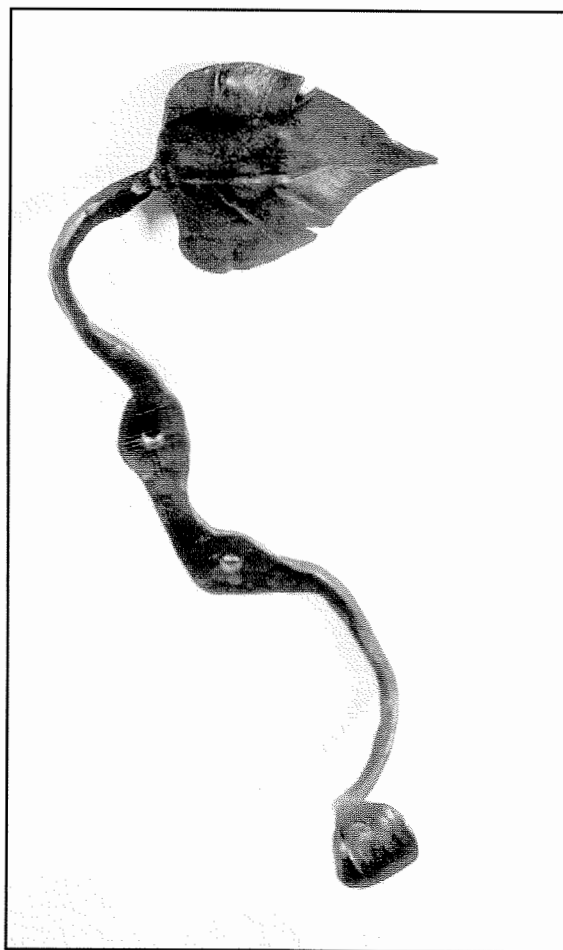
*Kris Ketchum Copper Cross*



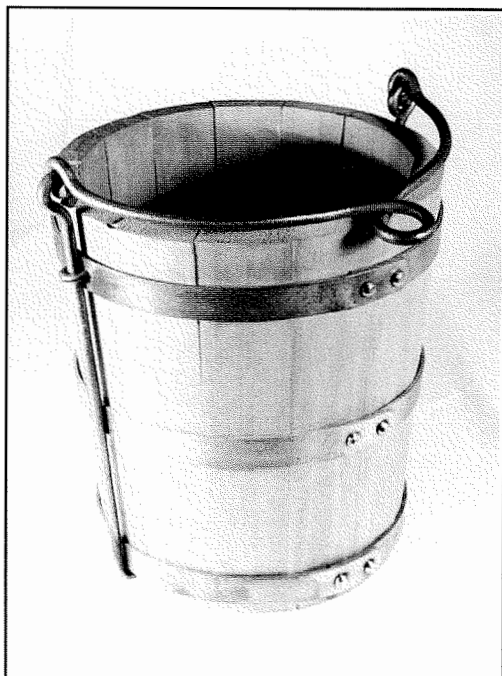
*Terry Carson Flower From One Piece*



*James Chastain Belt Ugly*



*James Chastain Leaf Hook*



*Ralph Hinds Bucket*

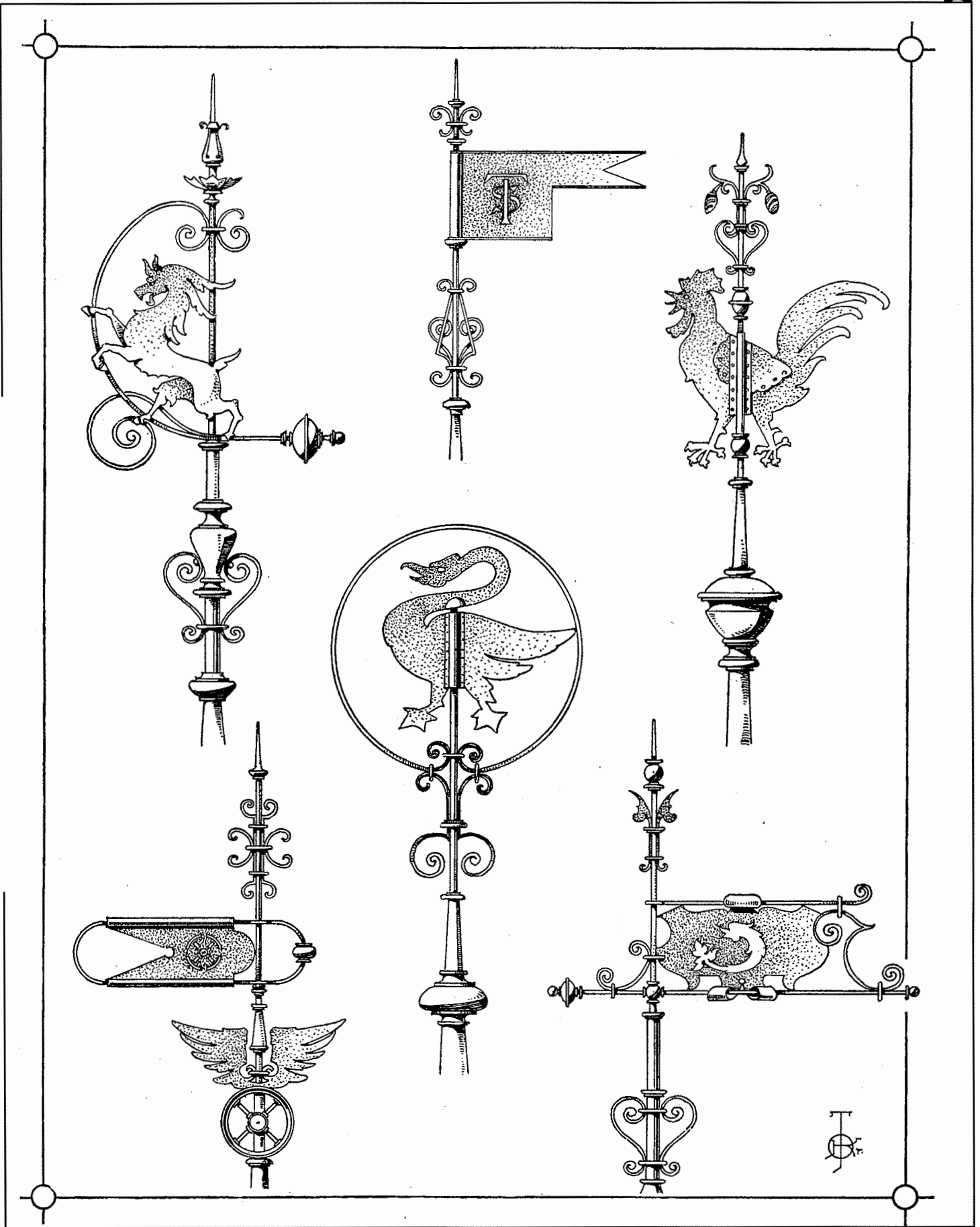


*Darryl Nelson Phyllis' Elephant*





*Darryl Nelson Don's Cat*





Willem Jonker's building containing his Smithy and Home in Deventer, Holland

*Willem Jonkers was the Spring Conference Demonstrator at Eugene, Oregon in May, 1997. Willem gives us some tips on . . .*

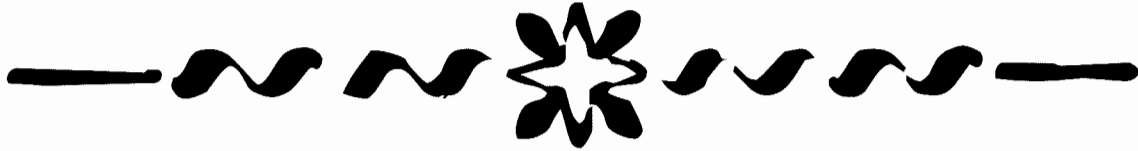


# Weatherbanes



Willem Jonkers iii





The skyline of Holland doesn't consist only of windmills, there are also weathervanes to decorate buildings and for other practical purposes. There is quite an amount of history and examples of all kinds of vanes. Weathervanes consist of two parts: the console, with a vertical round bar, and the vane itself, in order to catch the wind and give direction by pointing from which side it's blowing. The vane is a wonderful object to illustrate something: the building, date or year, a person or family by initials, trade or craft, unfulfilled wishes or just for fun. And, executed in the right way, it's a living, moving object that can tell us a lot about the weather. Here there is something about the name for which we envy your language: we call it in Holland a "Windpointer" and forget the value about weather-forecasting.

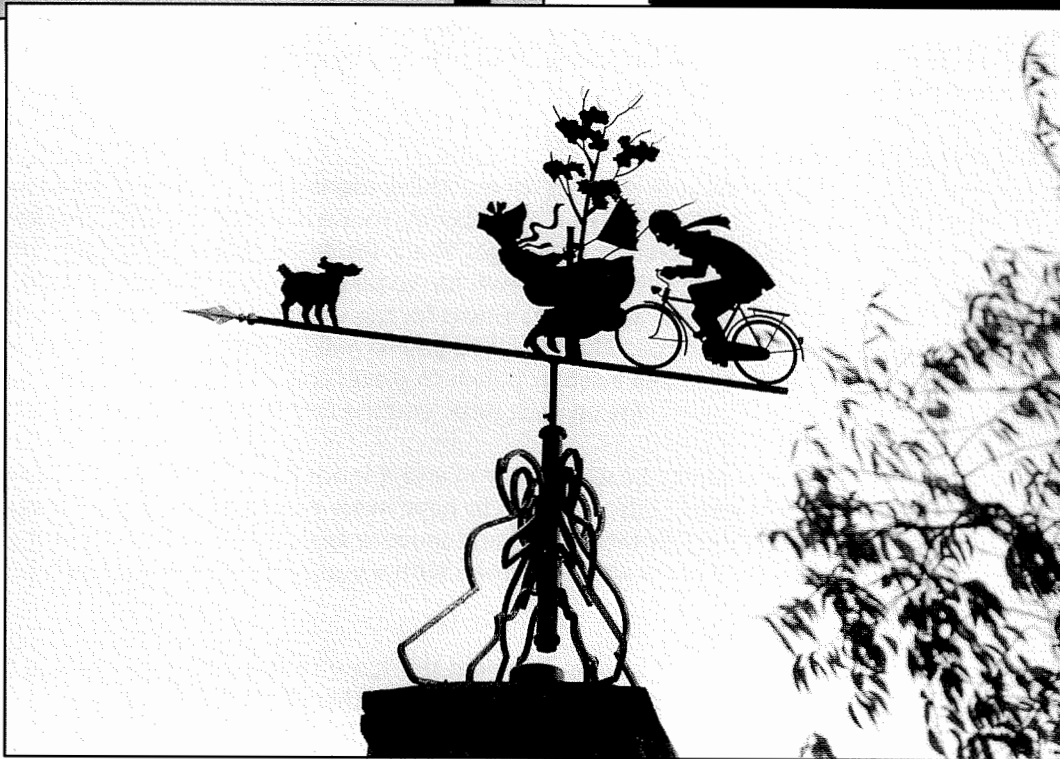
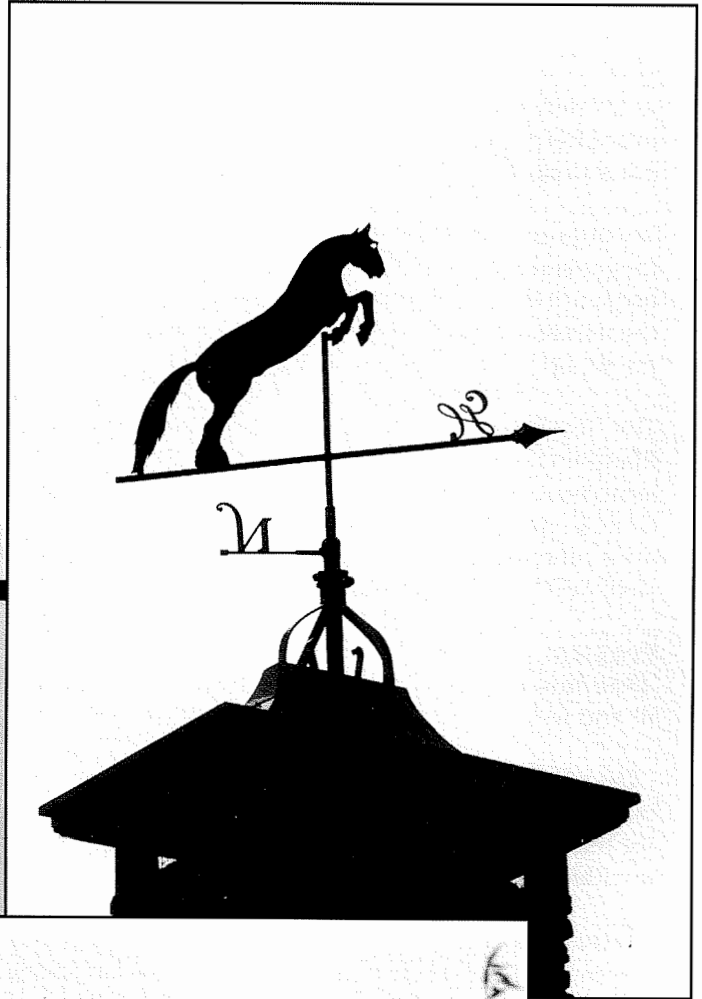
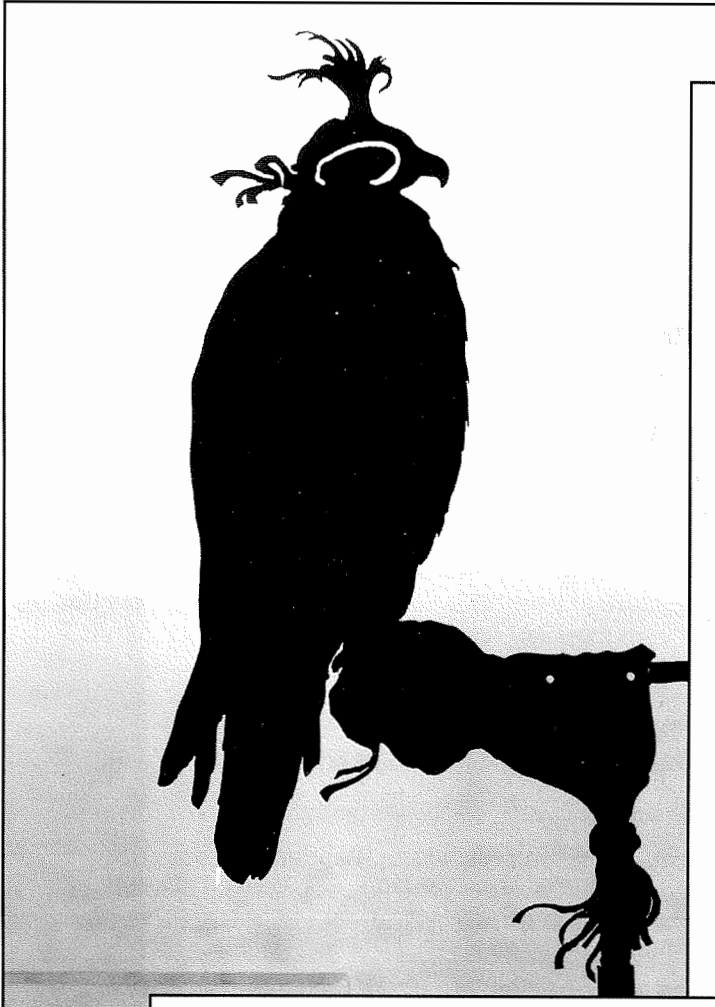
What is important in creating a weathervane or weatherpointer, when you make your design, is to look first at the dimensions, so that you don't disturb the architectural style of the building. The weathervane should always be a kind of an extension of the building. The site should be constructed firm enough to hold the console; the chimney is often chosen, either on top or against the side. The same with the side walls of a house, or even a solitaire on a statue or stake in the garden. Ships are equipped with vanes, and also bridges, airfields etc.

When it comes to designing the shape of the vane, I usually take precautions about the distance from which we look at it. If we have to look up quite a lot, I extend my figure extra vertically, so that it will look properly proportioned. Most figures are flat, but sometimes the situation demands a bas-relief (like a coin) and then you create a hollow figure, mostly made out of two sections which are put together. Always be sure that the surface of the figure is much more than the counterweight of the pointer/arrowhead. In order to get the balance in weight perfectly I often use a tube from the figure to the arrowhead or french lily and pour in enough lead until the weight is even. For this detail a bit of calculating in advance would be advised.

Technical attention is needed for the bearings. In order to react smoothly and promptly, it should be executed as much as possible without resistance. The influence of the weather on this subject is also important. I make sure that the water never can enter the bearings and I make the moving ones out of self-lubricating bronze with stainless steel shafts, which rest with their pointed end on a ball. The bronze "nest" is filled with oil or grease. Do not forget that if you create a vane with too much clearance in the bearings, you will make yourself very unpopular with the rattling sound! Some attachments on the roof have to be "clothed" with lead, to prevent leaks. In order to see the direction, a "North" indicator or "windrose" will be the solution. The crown or windrose is usually equipped with the four wind directions shown by a lettersign. With the help of a compass it has to be installed in the proper direction.

The oldest weathervane which still exists, is a vane from a vikingship, made out of wrought iron, cut into a very complicated Celtic design. It is what we call *a-jour* and owes it's survival throughout history because it was gold gilded/plated. Still we do have a lot of fine vanes because they were cut out of brass, copper or well-protected gilded sheet iron. The Medieval Period was famous for applications of weathervanes. The buildings look more romantic. I have restored and rebuilt many weathervanes for palaces, churches, castles and historic houses and boats. At this moment I am working on a great commission for The Holland America Line and one of the themes will be historical weathervanes of famous ships, mostly executed in bronze and gilded with goldleaf. So, if you can't afford a weathervane, just buy yourself a ticket to that special cruiseship and enjoy all the directions of the wind . . .





# *When your Vice is your Vise!*

by Ike Bay

As my skills and knowledge grow there seems to be a compelling desire to revisit old projects and do them again in a better manner. So, adding a new leg vise to my shop was also a reason to revisit the other two. Everything got an upgrade.

My vises are mounted to benches and the benched are nailed to the wall. The two main vises are elbow-high for general cold work like filing, and I have done a fair amount of hot work on them as well. The problem with hot work is that I am often not working from a comfortable position; with my elbows up and out, I take on the demeanor of a large awkward bird trying to take flight. For years I have wanted to add a "low" vise to my set up for hot work and other applications.

The "low" vise is three or four inches higher than my anvil and lets me get on top of anything I am trying to do. Planishing ladle bowls with the planishing stake in the low vise is a vast improvement. How do I know? My arms, back and shoulders tell me so! I cleaned up several old vises as I considered candidates for the "low" vise. Once a selection was made, it was time to correct as many faults as possible before installation. The below tips are a culmination to my study and reconditioning of post vises these last few months, WITH A LOT OF ADVICE AND HELP FROM OTHERS!

## Problem

## Possible Solution

**One Jaw Lower.** Small bolt has been substituted and needs to be replaced. Joint bolt needs to be a snug fit and screwed down tight.

**One Jaw Lower.** Leg between the jaw and joint is bent. Multi ton press works wonders and does not take the temper from the hard jaws. Definitely a cold work job. Consider both legs as potential candidates for this treatment. Hot adjustment may add more problems than it solves. Adjustment by grinder is to be avoided if at all possible.

**Jaws miss align left to right.** Take a dull red heat on short leg above joint area. Bolt in place and manually pull to the side until everything is aligned properly. You will be amazed at the light amount of force that is needed moves the jaws.

### **Retention collar not a snug fit.**

Also view from the side at eye level and check the slots for matching alignment. One of mine had each slot dropping in the opposite direction. This had caused a prior owner to use real thin wedges. Remember that most of these are Wrought Iron and subject to breakage. Sharp inside corners are a danger. Using the long leg of the vise for a form and mashing everything down has to be done with care and caution. If the vise leg has sharp square corners, round them with a file. If slots for the wedges are not aligned on the same plane adjust while hot using hammer and anvil. This may lead you to making new wedges. When everything fits well, mark the collar and wedges with a center punch so pieces come together the same way every time. The collar needs to be place with same side up each time, and the reference mark tells you how.

**Bar on turn screw bent.** Again these may be wrought iron and it is not hard to bend them. Straighten in a vise rather than beating with a hammer. Also a reason to have more than one vise in your shop. Place hot handle horizontally in vise and tighten. Rotate handle and squeeze again until straight. Reheat and work from other side to get whole handle straight. Best done with a buddy to help! Avoid hammer tightening when vise is in use.

**Leg below joint bent.** Straighten in vise as above. We bent the "Low" vise leg 90 in the vice; a two person job but very easily done. One person held the work and the other did the tightening.



**Screw box not smooth or sticks.** Clean thoroughly and apply very light oil. Work back and forth to locate any tight spots. Work over screw threads with file to do a LIGHT dressing.

**Poor spring pressure on short leg.** If no bind in the joint you may need to bend the spring to give greater tension. Work above red and air cool. No heat-treating necessary. Watch the lower end of spring is not pushing with its edge.

**Three hole bolt plate warped.** Some are cast and adjustment while hot is a risk. We used washers as adjustments to fill the gaps and this helped everything sit snug and the vise level and true.

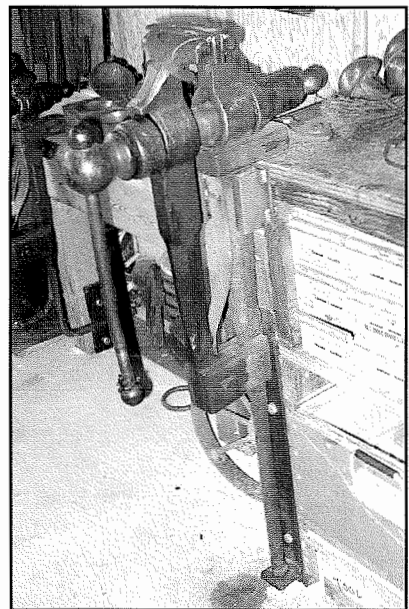
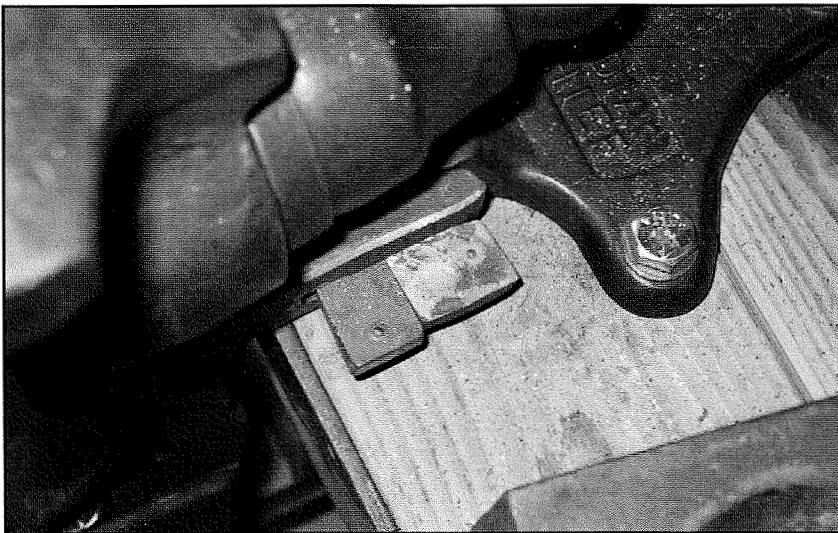
**Does not grip tight.** Grips best in the center of the jaws. Jaws tend to grip in a taper. "The Blacksmith's Cookbook" by Frances Whitaker talks about vise jaws and spacers on pages 19 & 20. Grinding is a last resort.

Everything works smoothly and well, its time to mount on the bench. Take your time and consider options before you act.

To mount a post vise I like to use long boards or bars to let me sight things out. Are the vise jaws parallel to the bench? Is the top line of the jaws level? Is a straight bar clamped vertical in the vise tipping to the front or back? Use a level or eyeball to check. Adjust your installation to correct these problems. Your jaw tops are probably not perfectly flat so this is not a dead on accurate presentation. Just get it as close as possible. If you use a vise stand most of this still applies.

My post vises have a bracket that is bolted to the bench that holds the end of the long leg. In a standard installation I position the vise and then build the foot bracket to meet the needs of the installation. The "low" vise has a bracket that pinches the vise leg to the bench leg. Some day one of your grandkids will buy this vise and wonder how it got all bend up, they may never understand that it was done deliberately. I did not cut the leg short because that was unnecessary and limited the vise use in the future. Shops with gravel or dirt floors can accommodate any height vise because the foot support can be buried.

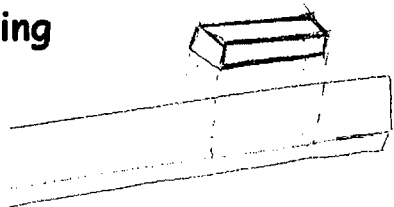
The vise must be solid. The long leg can be "boxed into the bench for added support. 2-by material on both sides, butted up close and tight, does wonders. Also widens your bench by 1.5 inches. Vises that move or wobble are a deterrent to good work.



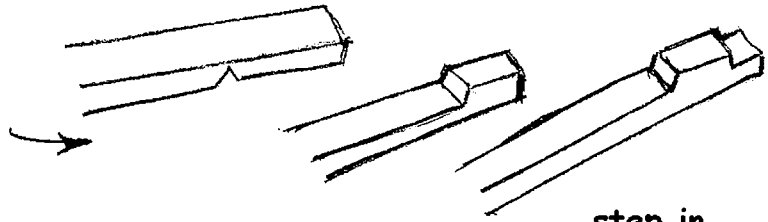
# Nail Notes by Ike Bay

## Nail Header Forging

1

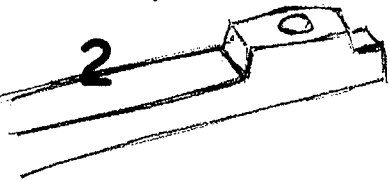


or



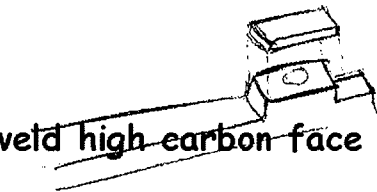
punch/drill 3/8" or 1/2"

2



3

weld high carbon face on boss



step in nose

forge into convex profile

4



long taper punch

5



6-forge handle

7-file face & hole

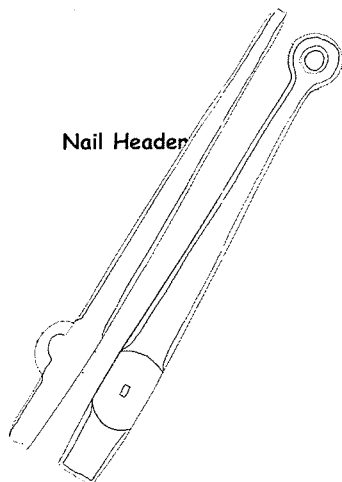
8-heat treat

back punch through steel face support on wood block

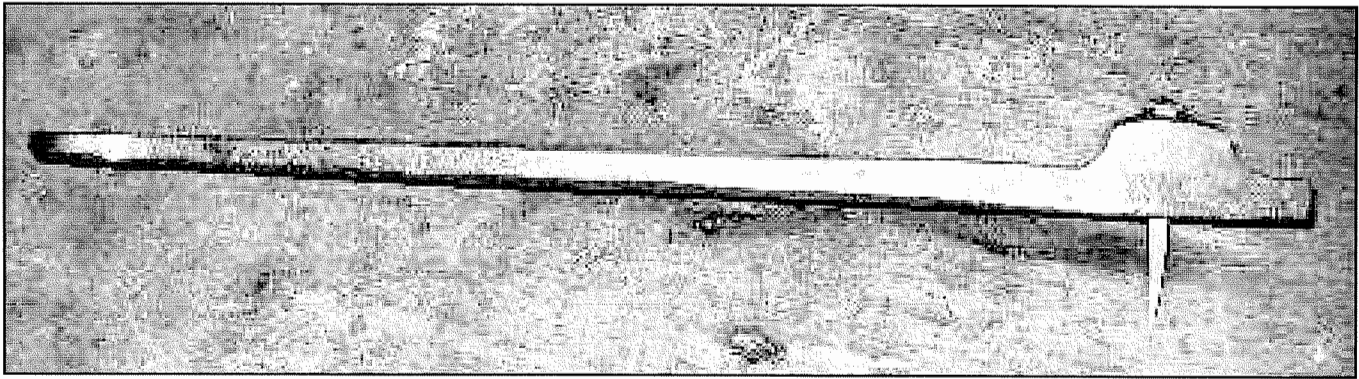
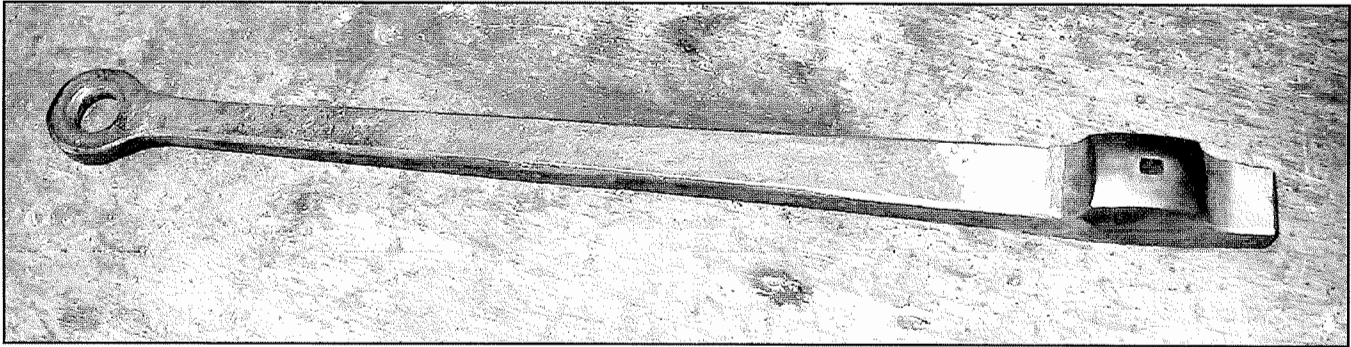


radius top edges of hole see cut away view

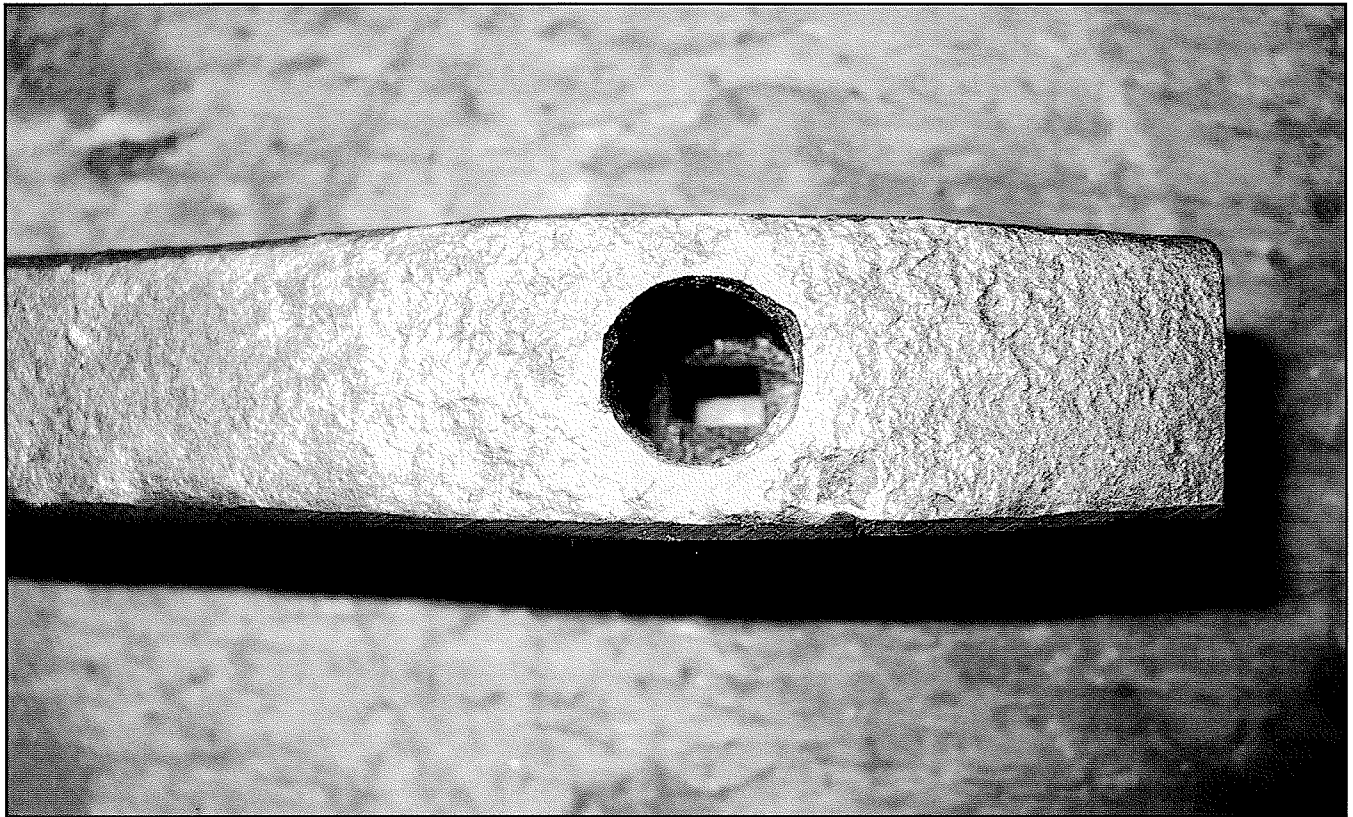
By Jim Slining  
704-539-5332



Nail Header







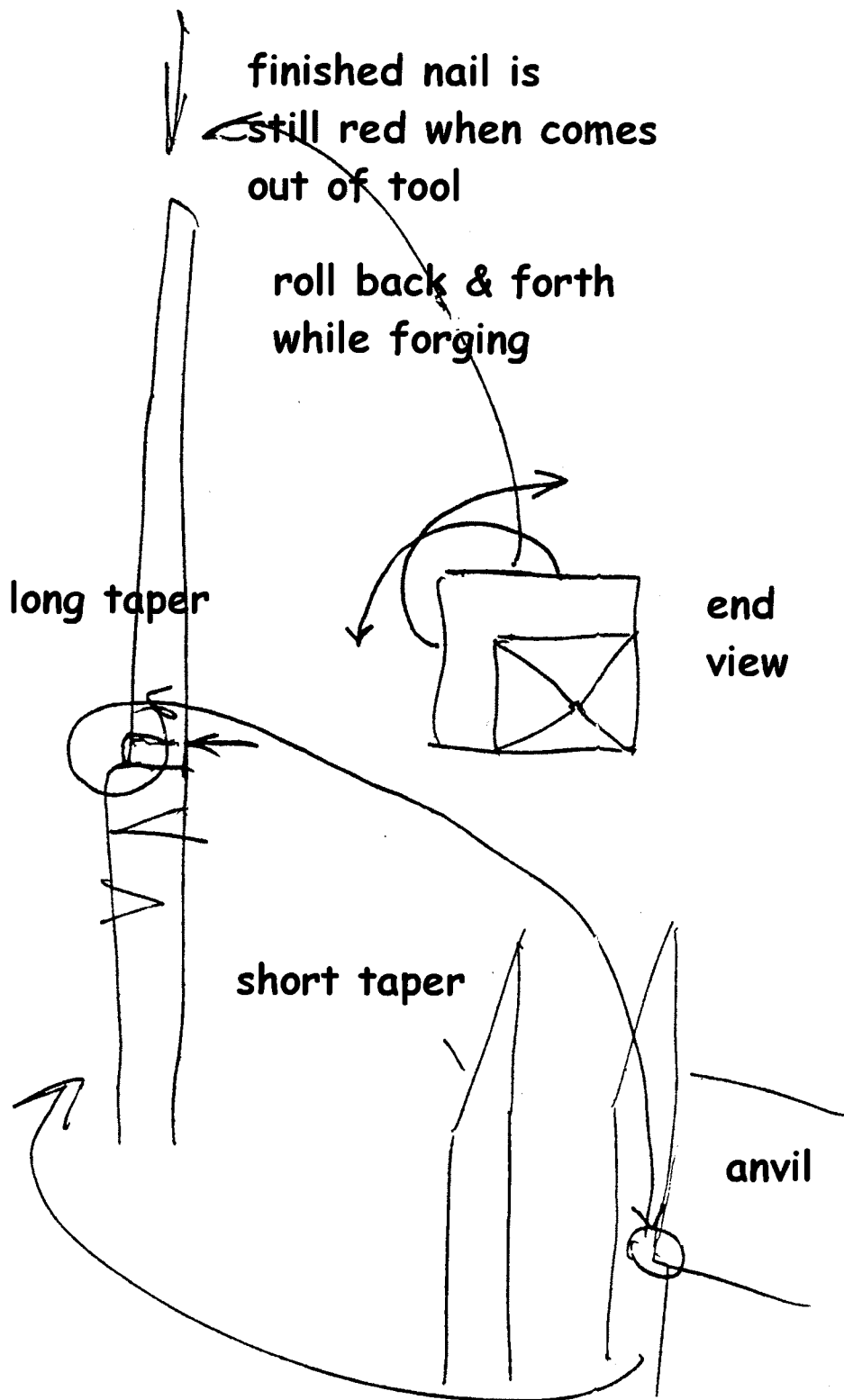
Nail Notes: STEPS

- Start with 1/4" SQ or RD stock
- forge short taper front of bar
- forge shoulder farther back on bar, do this on only two sides
- nick two sides of bar above shoulder with hardie
- Place in nail header and twist off
- flatten head with 3 or 4 facets
- Quench in water and knock out nail

COMMENTS: Do whole process in one heat. 15 to 16 blows to finish point and shank. less than 30 sec time. all heading blows off center & hammer canted to form facets on head. make most of taper before making shoulder. front (point) half of shank tapered, rest straight. "T" heads, make nail standard way and shake partway out of tool and flatten two sides of head on anvil

Working part of header tool steel, body mild steel or iron

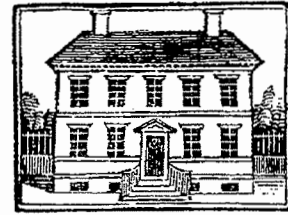
# How A Nail is Made



2001 Peter Ross Workshop Crafts ~

# Colonial Hearth Toaster

By Hardie Swage



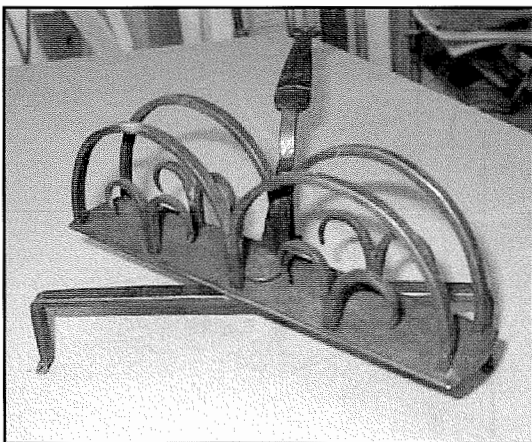
For the past few years Peter Ross, master of the blacksmith shop at Colonial Williamsburg, Virginia, has come to the Northwest to teach. Williamsburg is a living history museum depicting life in colonial America. Peter's specialty is recreating period work using the technology of the period. He utilizes lots of hand forging with limited tooling. Students with varying skills have taken these classes over the years. Students have always been supportive of each other but this year Bev Sokol's home-baked eatables and Nick Marcelja's belly-dancing raised sharing to a new level.

The 2001 workshop saw 12 students gather at Don Kemper's and take on the task of making an authentic hearth toaster. The toaster sits in front of the hearth fire and the radiant heat, not flame, toasts the bread. Bread is placed in a cage that is rotated 180 degrees when one side is done.

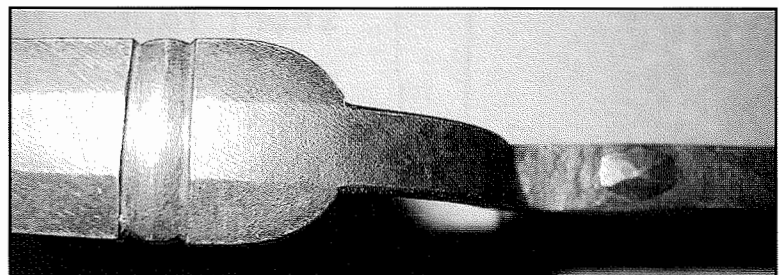
On the first day the students started on their frames. The legs were split or welded in place. Legs and stem were drawn out leaving a bolster at the "T" for a rivet. The rivet hole is punched and a slot is punched in the stem for the third leg. A handle is formed and the front legs and stem are bent. These frames are sort of a free-hand exercise. The front legs are of similar length/height and the bend in the stem, before the handle, is long enough to allow the cage to rotate 360. The third (rear) leg is longer and gives the toaster a "raked stance" toward the heat source. The ends of the legs and the handle lend themselves to embellishments generated from forge and file. Toaster handles are more robust than those of cooking forks, spatulas and spoons but they still are eye-sweet and hand-friendly. File work on the handle top and edges can be quite detailed.

The second day we started our cages; making the floor, cold-punching the holes, drawing out and welding up the cage rails. A washer and rivet completed the pieces to be made. The outer cage rails line up with the frame front legs to give continuity of line; everything else is builder's choice. The ends of the cage rails are filed down and riveted to the cage floor, as are the decorative elements. Joining the pieces and adjusting as necessary to make everything straight and true took some time and effort. The washer creates clearance between the rivet heads on the bottom of the cage and the frame and the pivot rivet is loose enough to allow freedom of movement by the cage. Quite a few of the class finished their toasters and the rest will be completed shortly after returning home.

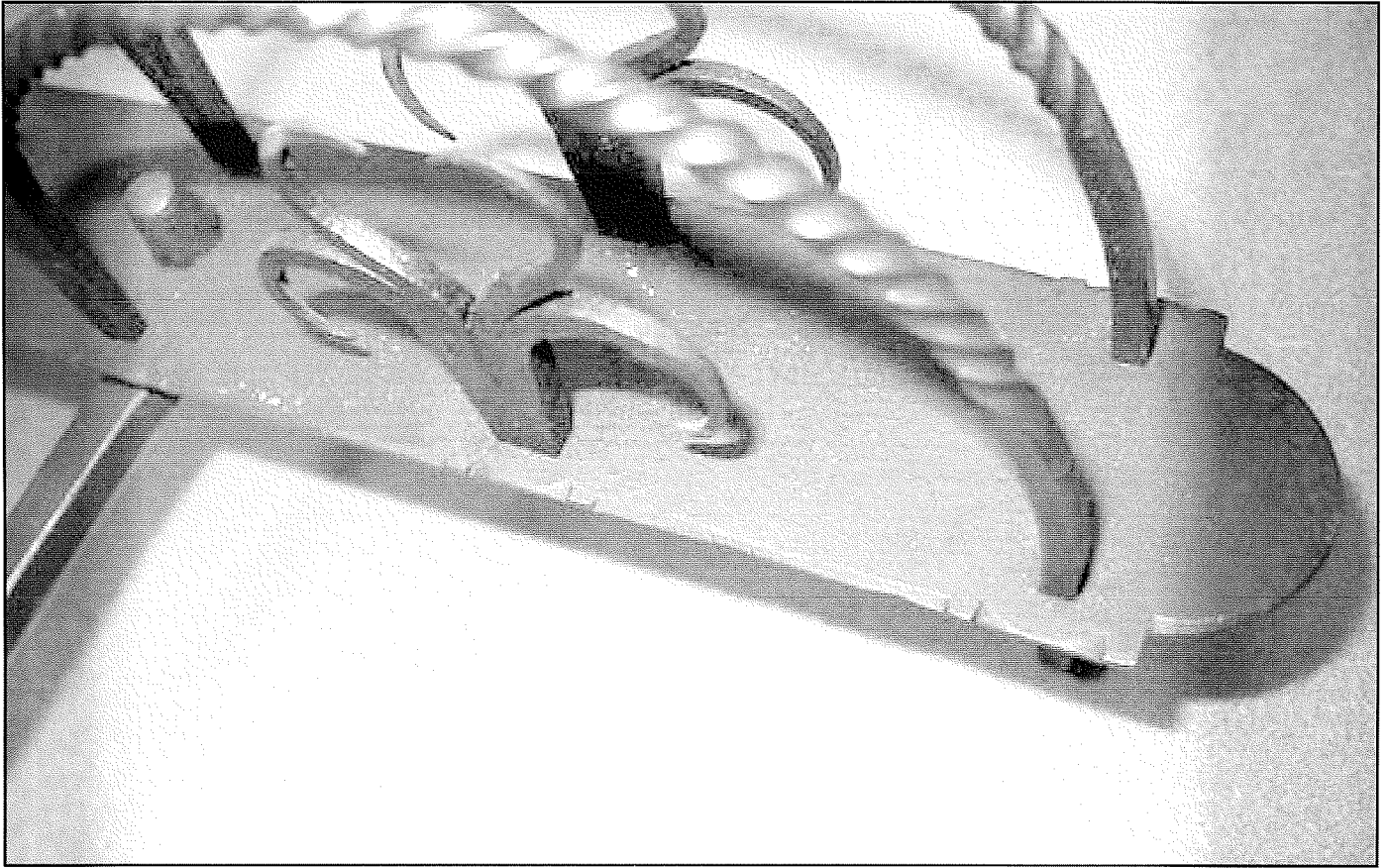
The accompanying photo(s) give you an idea of the finished item. The toaster completed by Peter during class will be auctioned off at an up coming NWBA conference. The 2002 workshop will be the second weekend in Nov (8-9-10) and the subject will be pipe tongs or a large compass. Anyone interested in the 2002 workshop can ask to be put on the mailing list by contacting Ike Bay at 503-645-2790.



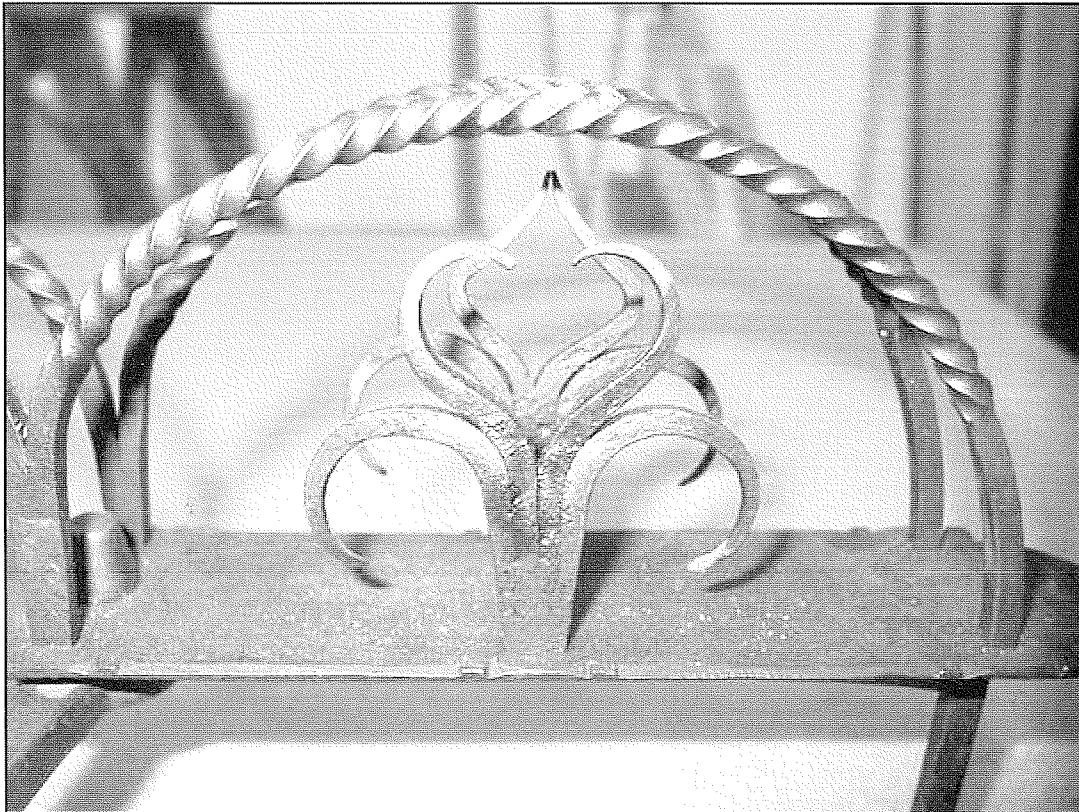
Colonial Hearth Toaster



Handle Detail

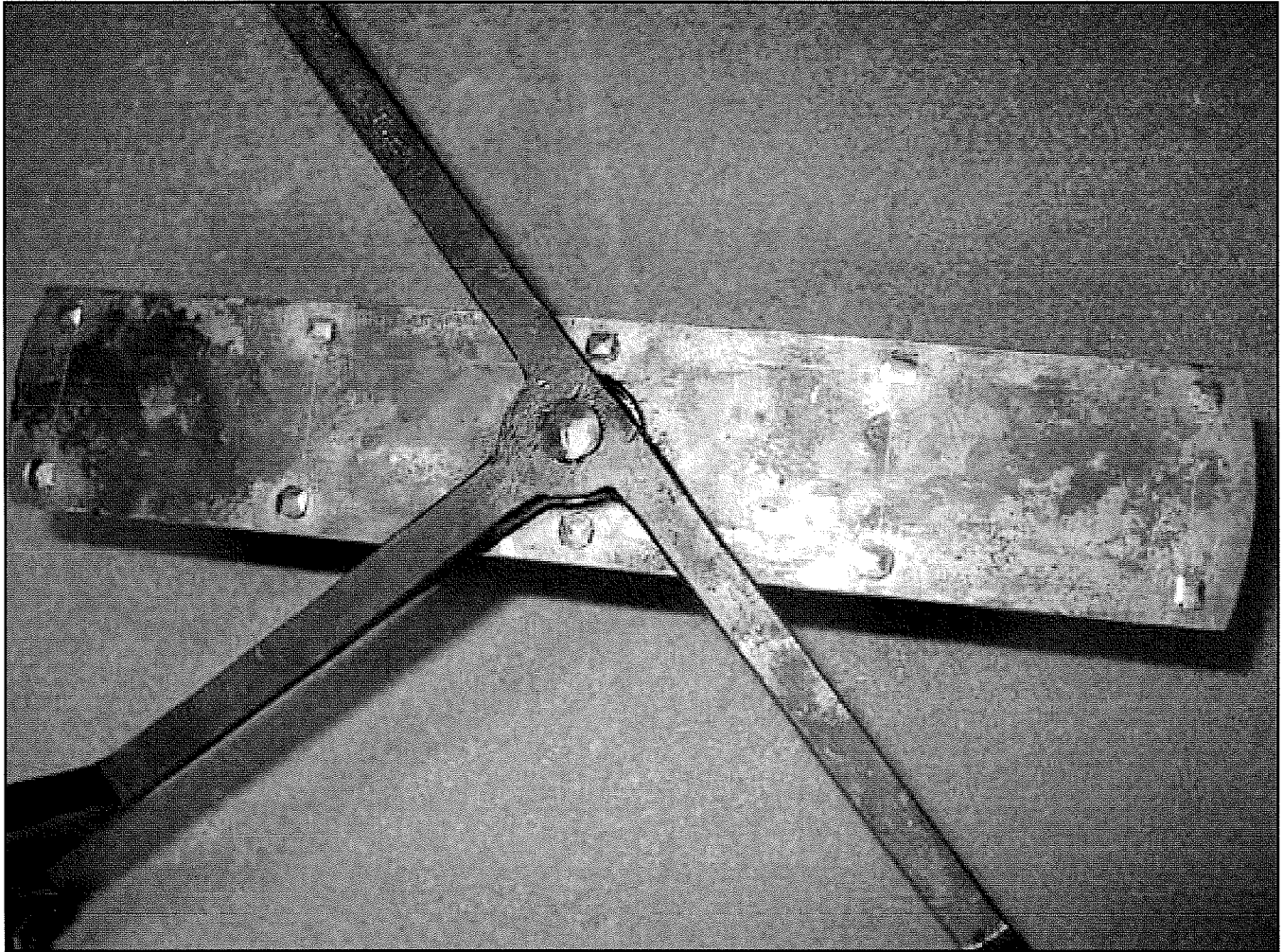


*Toaster decorative detail and swivel*

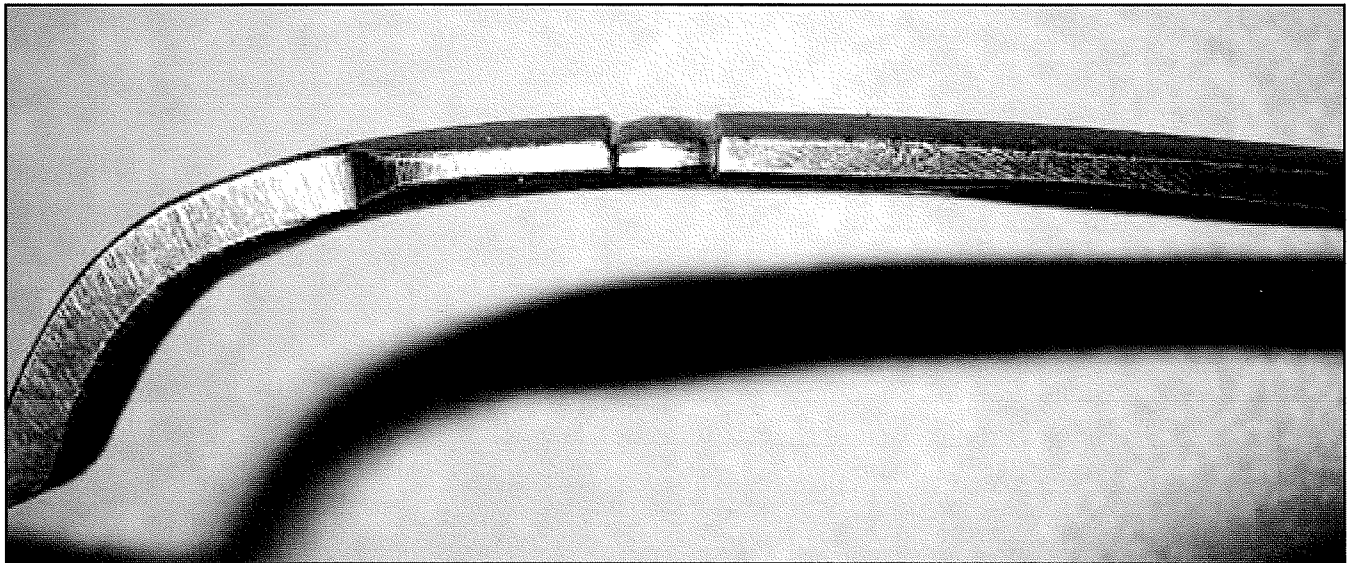


*Toaster swivel side detail*





*Toaster swivel mechanism*



*Toaster handle side detail*

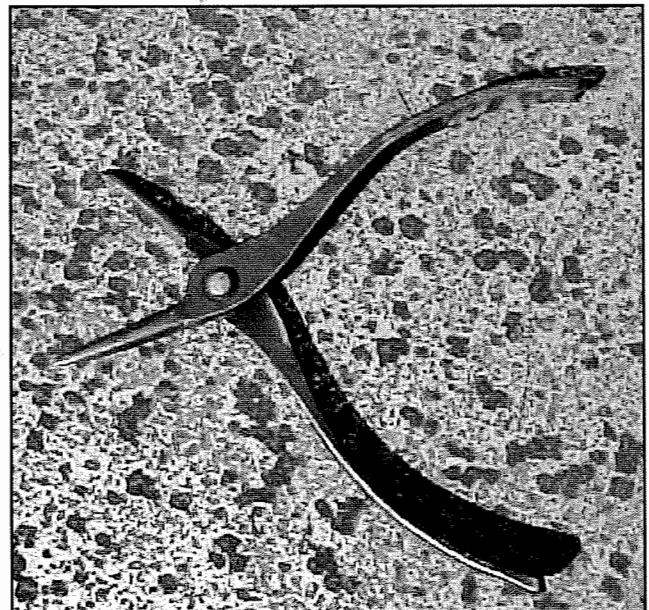
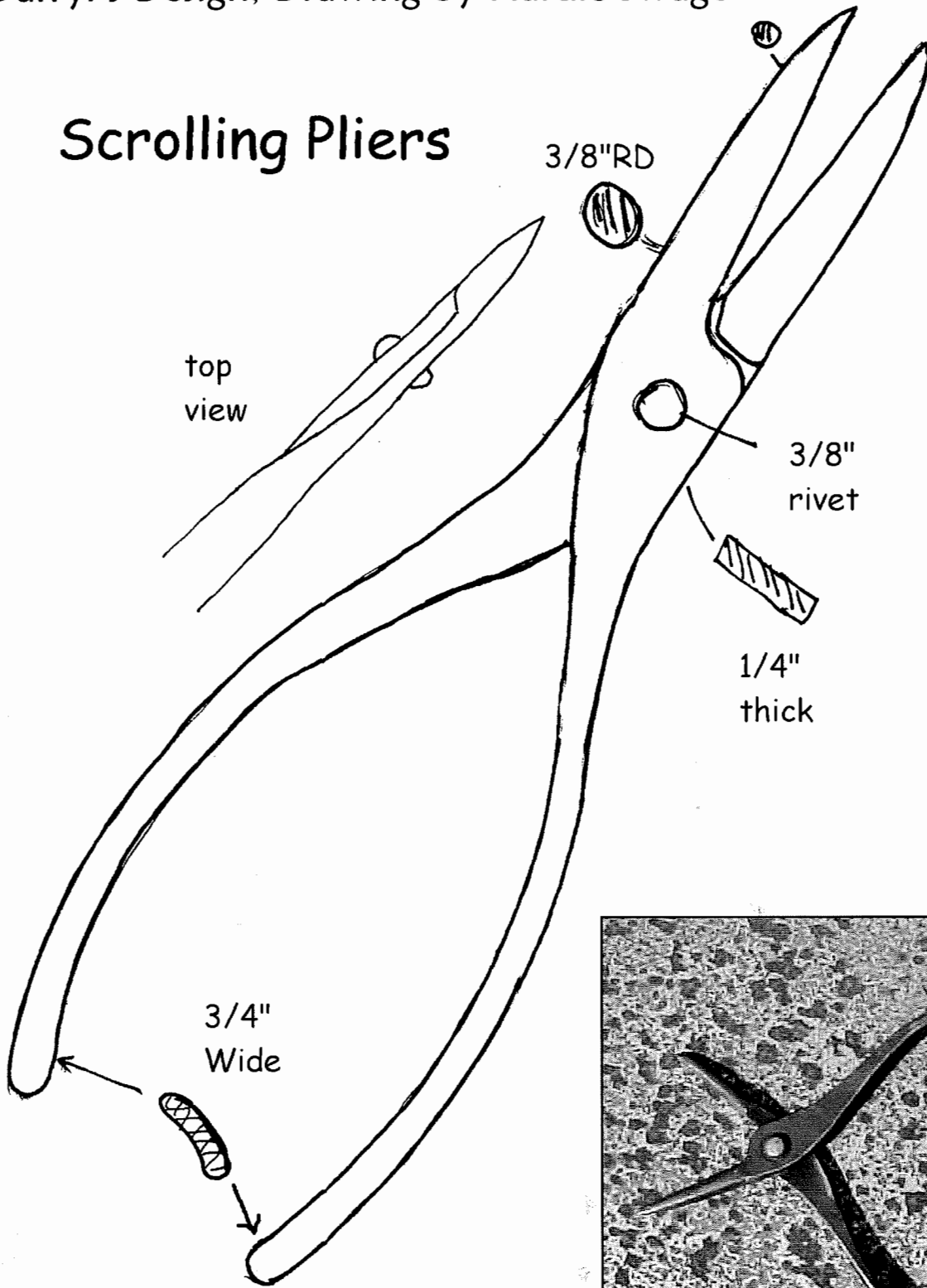
*A Hot Spring Conference Day brings out the . . .*

# *Hunks of the n.w.b.a.!*



Darryl's Design, Drawing by Hardie Swage ~

# Scrolling Pliers



## Pure Iron ~ Bob Race

Some of us at Fort Vancouver ordered a quantity of the "pure iron" and my reason was simply just as a matter of curiosity for I only ordered 24 feet of 1/4" by 1, as it is about \$1.70 per pound.

When I picked it up, the surface had already rusted a pinkish purple, but it was easily rubbed off the material, but the hands and clothes were another matter--that rust had a magnetic attraction to everything it touched. Working with it in the gas forge was quite surprising, for it heated up quite rapidly, and seemed to upset with ease when the end was squared up. My project was a small tasting spoon with a three-inch diameter bowl and a ten-inch handle. I usually make these from 1018 as file finishing gives me much satisfaction with this material. The "pure iron" metal just flowed under the hammer and spreading the bowl out to three inches was the easiest that I have ever done. Usually I have a problem of centering the bowl with the handle and have to take a couple of heats to realign the center line. On this occasion one heat was all that was necessary since the metal has little resistance when at a bright red to yellow heat. The final forging work was less than an hour after I started. The next trial was how did this material act under the file? Here it was a disappointment, for the iron worked almost like 5052 aluminum. It would rapidly clog the teeth and I was constantly brushing the different types (rasps, mill, second-cut, etc.) off files. Granted, this was only a one-time thing, and more study needs to go into this investigation. If anyone has any input, I would like to hear your opinion. Bob Race at [bobrace@portland.quik.com](mailto:bobrace@portland.quik.com).

## How to make a Good Flint and Steel Striker by Bryan Wilson

**Step 1.** In making a good flint and steel striker, you will need, roughly, 6 1/2" to 7" of an old garage door spring. Cut it up with a hack-saw, bolt cutters or the cut-off hardy on your anvil.

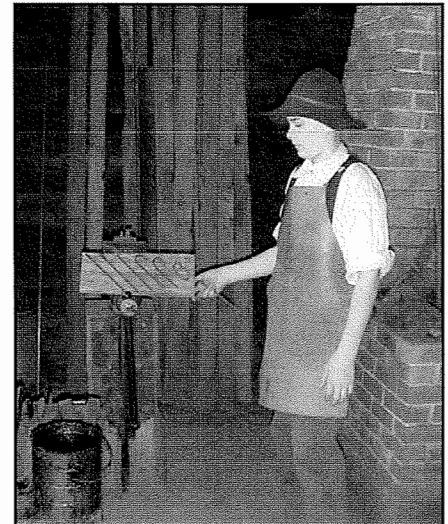
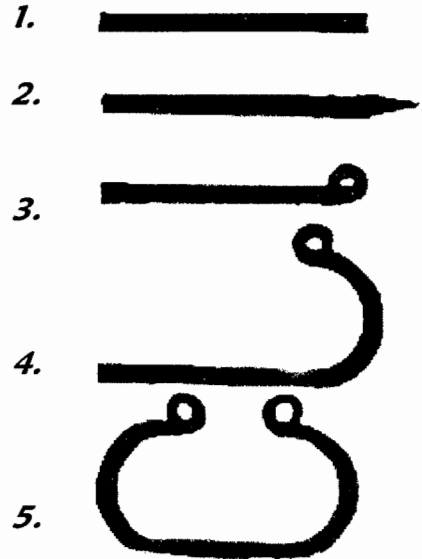
**Step 2.** Draw out a point on one end of the piece.

**Step 3.** Make a small rat-tail scroll on the pointed end.

**Step 4.** Next, bend over horn of anvil with scrolled end up, into shape similar to Drawing Number 4.

**Step 5.** Then, turn stock around and do the same thing on the other end, starting at Step 2.

**Step 6.** For your striker to work properly, it must be hardened. To do that you will need to heat up the striker, then stick the face of the striker into the water and move it from side-to-side. When the handles have cooled, stick the whole striker into the water, to cool it off completely. Then grind the scale off the face. If you have followed my directions closely, your striker should make a small shower of sparks when struck against a piece of flint or chert.

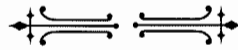
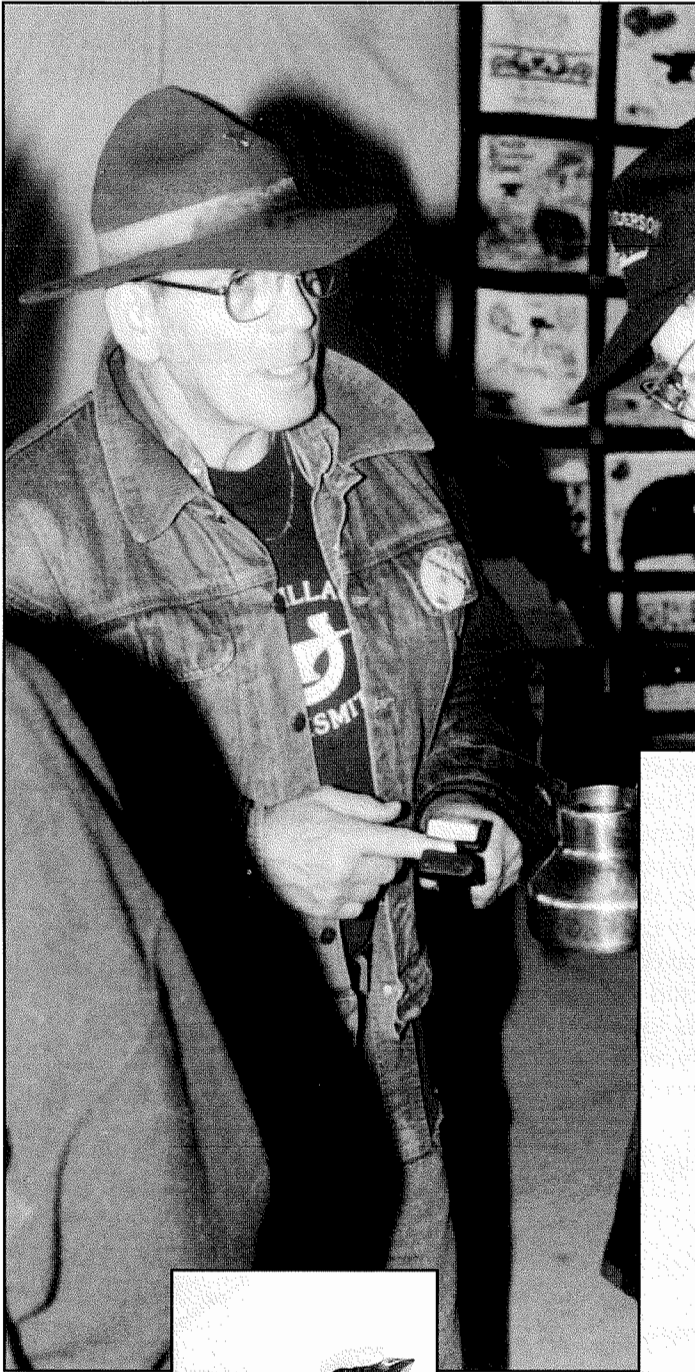


## HOT TIP

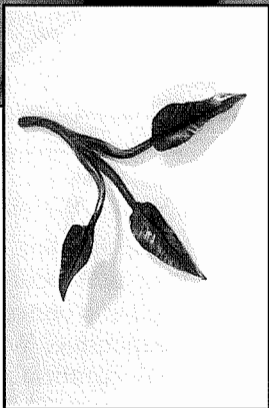
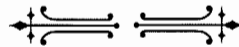
by Paul Casey, Quicksilver Metalsmithing, 800 Mercer Street, Seattle, Washington

Grinding on a corner will produce a burr that is quite sharp, attracting all sorts of debris such as lint, dirt, flesh, etc. Draw filing produces two smaller burrs in the same area and nasty, tiny splinters. In the past, I would wrap a piece of sandpaper around a finger and my fingers would quickly fatigue, causing cramps, cuts and unnecessary frustration. Then I discovered adhesive sanding discs. They come in a roll and are quite inexpensive. When stuck to a glove, they can de-burr an entire railing section with little or no fatigue. Since they conform to the natural contours of the hand, they are almost effortless to use. Now I am a happy smith, with beautiful, happy fingers. Phillip Baldwin inspired this Hot Tip and urged me to submit it! ~

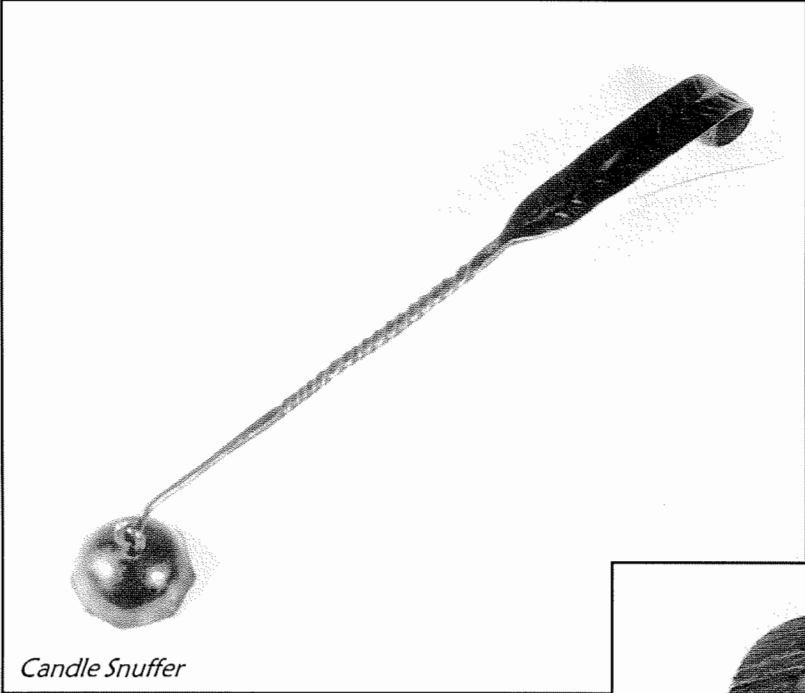




The N.W.B.A. lost a true blacksmith and friend on July 16, 2001, with the sudden passing of Geronimo Bayard of Oakland, Oregon at the age of 65. Geronimo was enjoying the success of his blacksmith school. He was a familiar face at conferences. His devotion to the blacksmith craft and his desire to educate and perpetuate the art will be greatly missed.



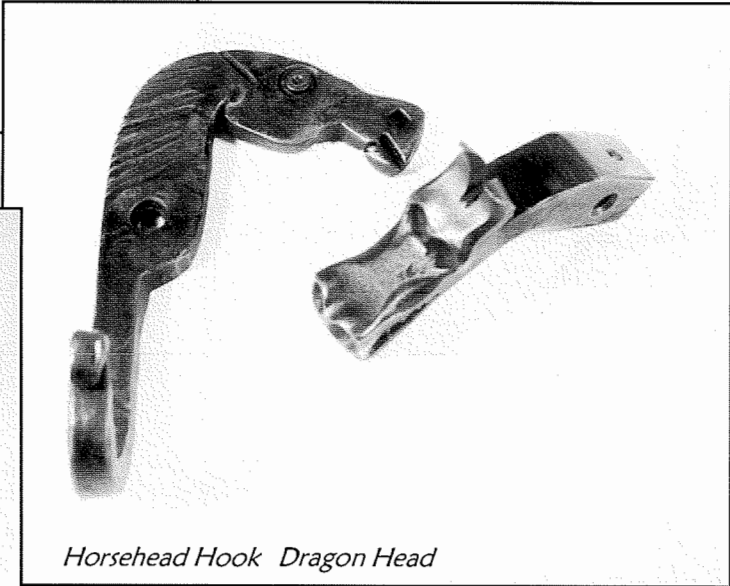
*Old Rugged Cross by Geronimo Bayard*



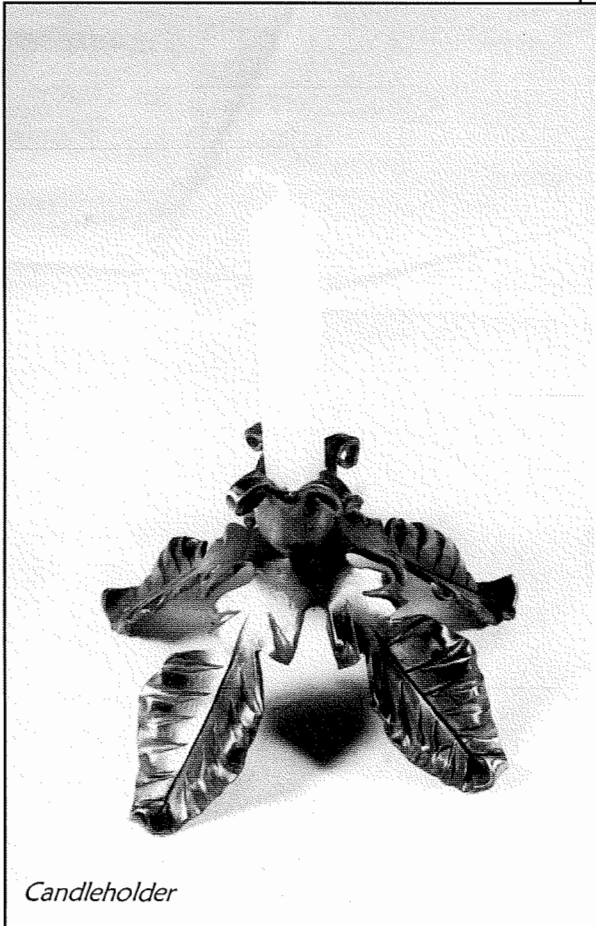
*Candle Snuffer*

**The Art of Geronimo ~**

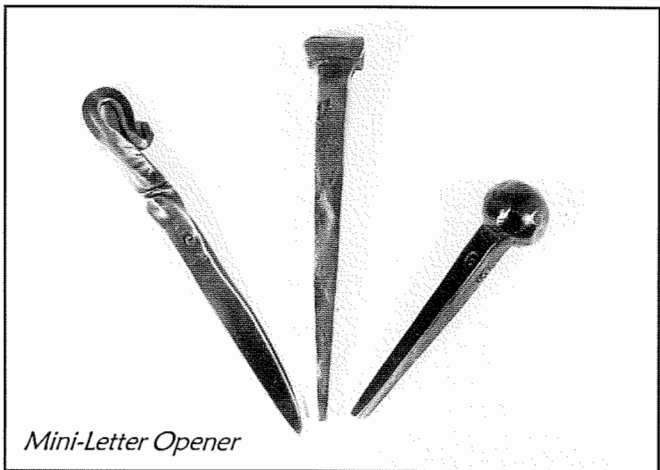
**Geronimo was a prolific iron craftsman. These are the pieces that he exhibited at the Spring Conference at Sisters, Oregon in May.**



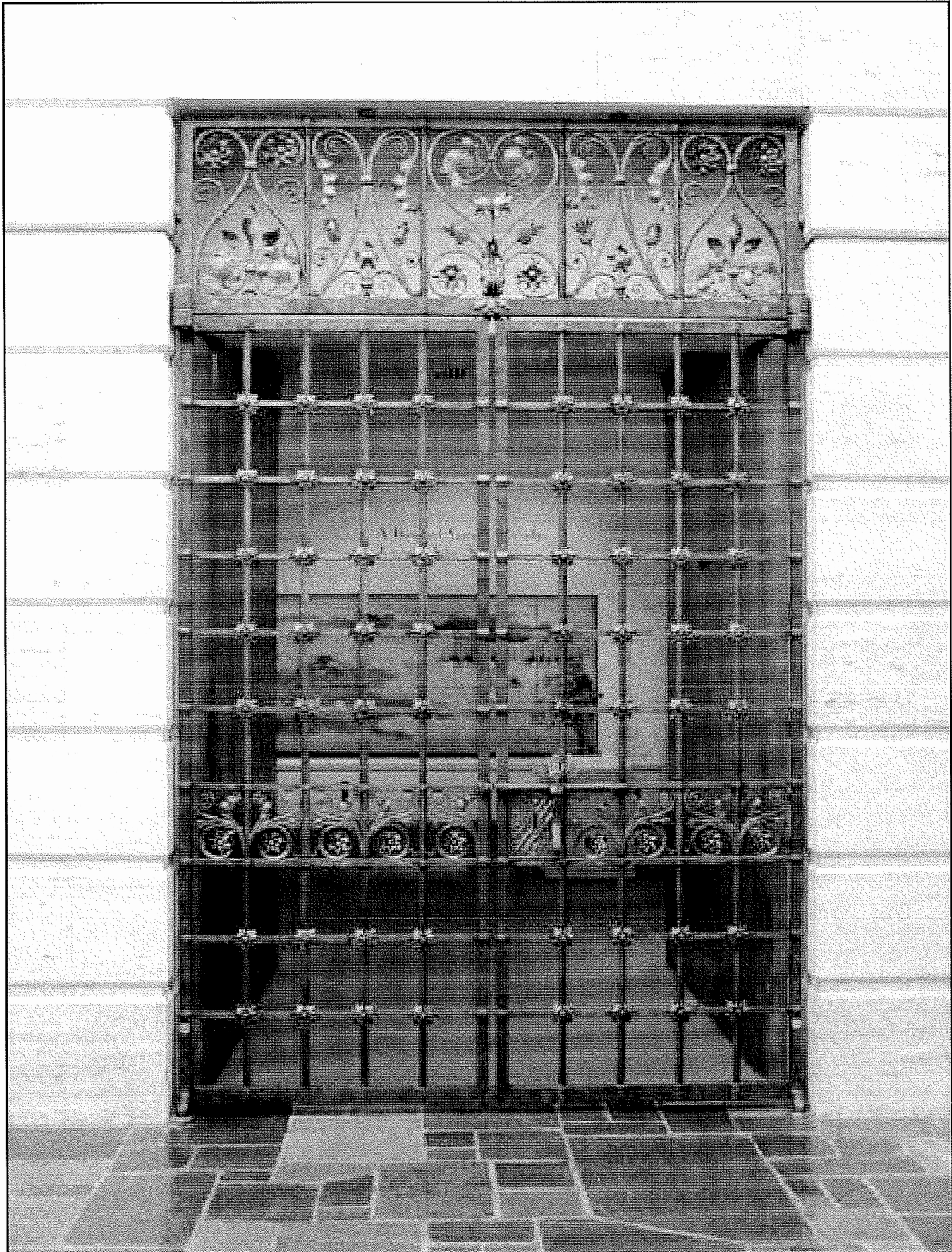
*Horsehead Hook Dragon Head*



*Candleholder*

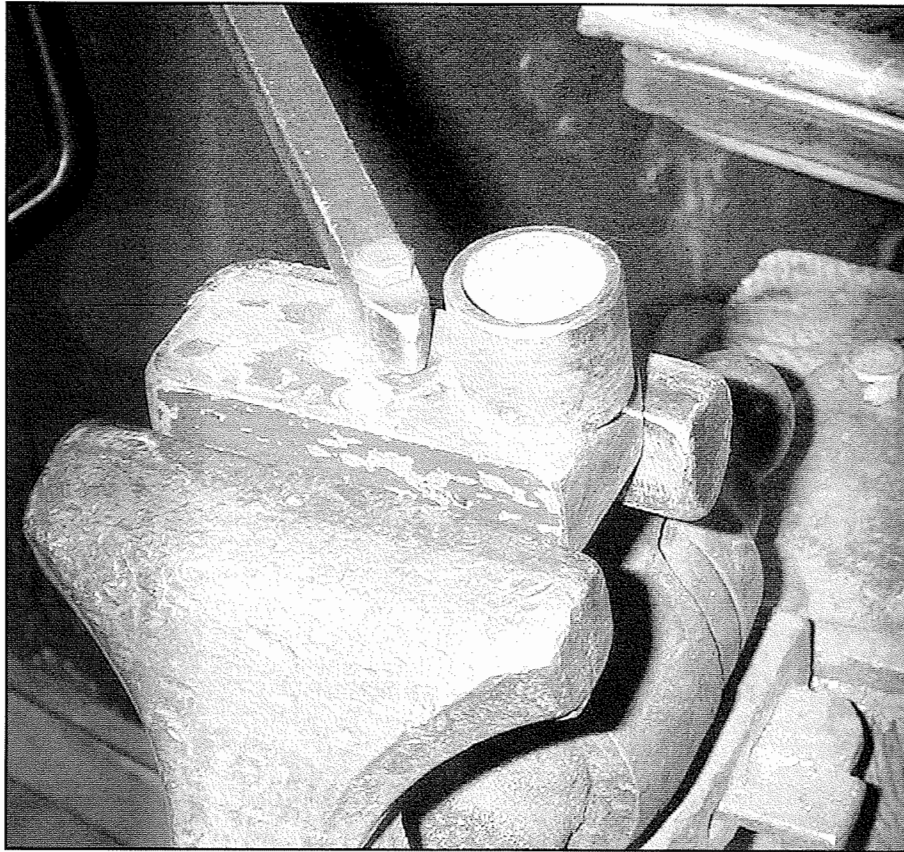


*Mini-Letter Opener*



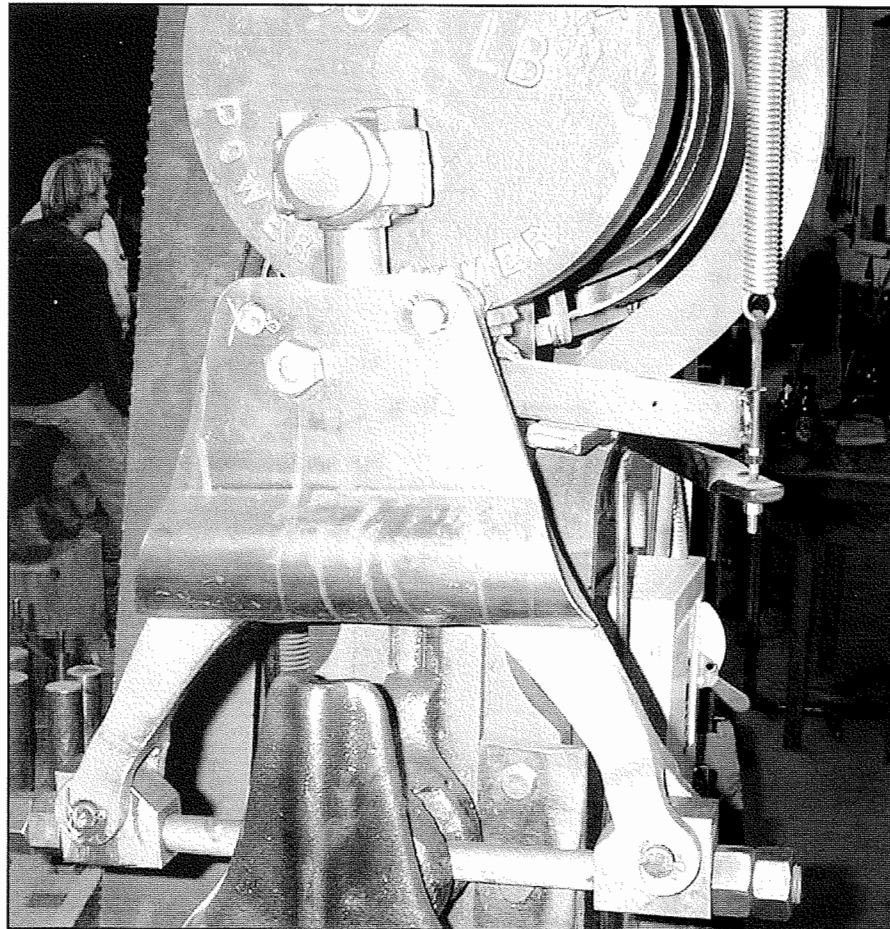
*Yellin Gate in Seattle Photo by Willem Jonkers*





### Shop Tips ~

The editor received these two e-mail photos of a great bender and a power-hammer guard. Who sent them??



Spring guard for Little Giant hammer.





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## N.W.B.A. Membership Roster

Al Karg maintains the N.W.B.A. membership roster, which is also the mailing list for the Hot Iron News. Please send all corrections or additions to Al, whose address is on Page 3. The list is updated continuously. Please inform Al if you are planning a move or change of address, telephone number, e-mail, etc.

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# ***Regional Metalsmith Conference Coeur d'Alene, Idaho October 5-7***

## ***At Hern Foundry ~***

*From I-90 take Exit 7 onto Seltice, which is a frontage road running along the Freeway on the South side. Go 3 Miles East on Seltice to Atlas Road. Turn Left on Atlas (North) and go under Freeway. Go North 2 Miles and turn Left onto a private road in a grove of trees (look for Conference signs). Go to end of road.*

***Contact Number at the Foundry is 208 765-3115.***

***Friday afternoon will feature a foundry demo and tour. Demos start on Saturday morning with Bob Patrick from Arkansas, demonstrating gate-building techniques and forge-welding, and Canadian blacksmiths John Smith and Doug Newell.***

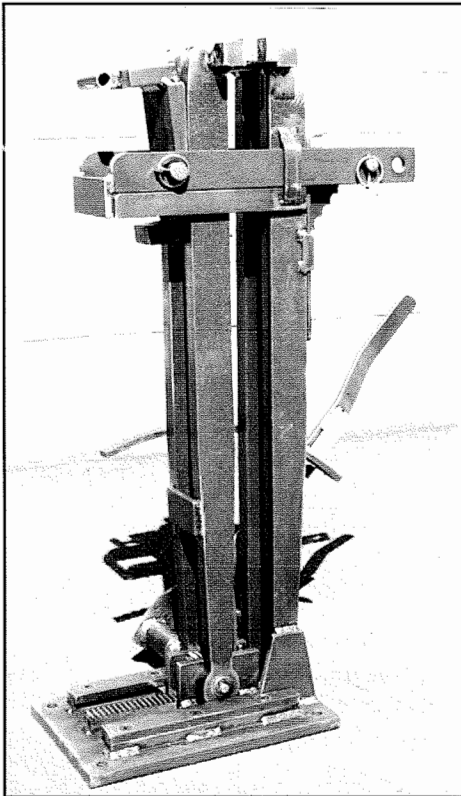
***Camping is available on site.***

***Conference fees are \$50 with a \$5 camping fee. The surrounding area abounds in motels and other accomodations.***

***The Saturday Night Banquet will take place on site.***

***Thanks to John Hern for his Hospitality!!!***

*Bob Patrick has been forging since 1967. He was the Master Blacksmith for Missouri Cultural Heritage and has demonstrated at numerous conferences. He is the Founding President of the Blacksmiths of Missouri and their top award is named for him. He has taught at the White River Artisan Academy, John C. Campbell Folk School, and the Ozark School of Blacksmithing. He has demonstrated at three ABANA Conferences. John Smith operates a blacksmith business employing 14 smiths. Doug Newell, from Alberta, trained in Europe and will demonstrate a variety of techniques.*



**Wester Wedge Vise**

The Spring Conference saw Jeff Wester and the Ponderosa Forge & Iron Works, Inc., unveil a new wedge vise. The vise allows an operator to operate it without dropping his tools. The step block adjusts jaw openings from 0" to 6". The lower pivot point is easily moved by gear and rack assembly to allow the jaws to be parallel. The assembly creates a 100 to 1 mechanical advantage. The removable 7" wide vise jaws can be machined to any shape desired. The 1" x 2 1/4" vise legs are made from high strength steel plate. The absence of a center lead screw allows long pieces of steel to be put down through the center of the vise jaws. For details contact Jeff Wester at POB 1798, Sisters, Oregon 97759 503 549-9280.

**An Iron and Art Show in Seattle** will be hosted by Black Dog Forge during the ABANA Board of Directors meeting in Seattle November 1-3. The opening of the show will be Saturday night, November 3 to coincide with an NWBA/ABANA reception, to which all members are invited. The exhibition will run through November. Says Louis Raffloer, Head Black Dog, "This will be

the first Board meeting in the Pacific Northwest that ABANA has ever had. Let's show them how talented the N.W.B.A. is!" Louis Raffloer and Leticia Kagele are planning a gala reception for the event. Members are also invited to attend the board meeting sessions which will be held at the Black Dog Forge on November 1-3. The address is 2318 Second Avenue, Seattle, just north of the Pike Street Market in Belltown. RSVP to Louis for the exhibition by October 21. Delivery deadline is October 28. Contact Louis at 206 443-9413.

**Letter to N.W.B.A. ~**

Dear N.W.B.A.:

I am writing this letter of thanks for your support that allowed me to attend the Flagstaff Conference last year. Though I have been working with welded metal sculpture for many years, I am just learning the basics of traditional ironwork. The conference exposed me to many techniques, styles, interpretations, and ways of thinking that continue to feed my thoughts and imagination. I was truly inspired by the demos that used recycled materials to create works of beauty and function. I especially liked the way Steve Yusko utilized common junkyard finds and Lorelei Sims hammered out functional design with pipe and tubing. The Northwest smiths also put on some awesome demos! Connecting faces with the work made it far more meaningful than looking at pictures in a book or magazine. For me, the informal networking and sharing of ideas is the most valuable thing I took away from the conference. I am sure the people I met and things I saw will continue to motivate me for years to come.

As a single mother and artist working hard to make ends meet, I could not have afforded to attend the conference without financial assistance from the N.W.B.A. I am also thankful for the very open and supportive environment which I experienced at the conference. Even though I am just beginning to learn about traditional ironwork, the people I met were all very friendly, sincere, and encouraging. Being a novice in the field, that kind of response really made me feel welcomed. Thanks so much again

for your support!

Tamera Greiter, 5430 SW Helen Avenue, Corvallis, Oregon 97333-2612

**Letter to the Editor ~**

Dear Editor:

Our Spring Conference is over now and it was a great one! Demos were good, teaching stations were busy, and our host's shop was inspiring. I have one concern, however, about a certain X-rated auction item. I saw this creation on the table and did not stay for the auction. From what I heard later, it caused quite a hoot.

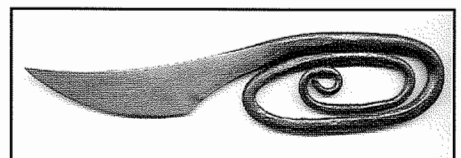
As blacksmiths, we have the freedom to create. But what kind of image do we promote by glorifying this kind of "creativity"? Was this spectacle really that funny? Did it really feel that good? If so, how would you explain it to the kids that were there, the first-timers, the wives, and all of us who believe that what happened that evening was wrong?

I think it's time that the N.W.B.A. started acting responsibly in matters like this. If conscience alone doesn't spur us to it, remember, a lot of people are watching us. We are a family-oriented organization, promoting sharing, learning, and good fellowship with other smiths for the love of the craft. Let's get our focus back.

Sincerely,  
Berkley Tack

**Brother-in-law Knife ~**

**Gene Chapman** recently put his brother-in-law David Brand to work at the anvil while the latter was vacationing out at Smedly Soapstone's Gamble Bay Vacation Retreat and Sanitarium, which is adjacent to Gene's smithy. The knife is forged from 1084 spring steel. Gene plans to have his mother-in-law brush all of the rust off of his tools during her vacation.



◇



Phyllis Tice and Babe Brandon

**Spring Conference 2002!** will take place at the King County Fairgrounds, Enumclaw, Washington, Friday through Sunday, May 24-26, 2002. Demonstrators will be Dave Thompson, Eugene, Oregon and Angelo Bartolucci, Meldola, Italia. *Serrata di gala!*

**2002 ABANA Conference** will be at Lacrosse, Wisconsin, on the campus of the University of Wisconsin. June 5-9. The theme of the conference will be Forging Traditions. ABANA will have a group of demonstrators from Europe developing a major project in one of the main forging stations. Japanese traditional metal artists will be in one station, along with bladesmiths from the U.S. June is a great month to be in Lacrosse and there will be activities for all on the Mississippi River. Camping is great, lots of motels and very good university dorm rooms for accommodations. N.W.B.A. has again been asked to do the ABANA Auction. Flying into Minneapolis and driving down the Mississippi River to Lacrosse is the scenic way to go!

**Blacksmithing workshops at Earth, Wind, Fire and Ice Forge include:**

October 19, 20, & 21. Wayne Goddard, Demonstrator. A basic/intermediate bladesmithing workshop. Wayne will review the basics in ensure all have a good fundamental base as he demonstrates how to forge, harden/temper a blade. Guards, handles and scabbards will be described and demonstrated as time allows. Plenty of time to have your questions answered by this senior

member of the master bladesmithing fraternity. Friday and Saturday 9 a.m. to 9 p.m. Sunday 9 a.m. to noon. Fee is \$200 and includes materials.

October 26, 27 & 28, 2001. Berkley Tack, Demonstrator. A basic blacksmithing workshop. This will be a basic blacksmithing workshop to get you started right! Beginning with safe shop knowledge, progressing to forges and fire building, expect to learn basic tooling, metallurgy and shop layout. Your hammer techniques at the anvil will grow as you use basic forging skills to produce a number of small items. A demonstration will start each project with plenty of time for questions and individual help as you forge. Friday, Saturday 9 a.m. to 9 p.m. Sunday 9 a.m. to noon. Fee is \$200 which includes necessary tooling and materials.

For both workshops contact Don Kemper, 20100 N.W. 61st Ave., Ridgefield, Washington 98642. 360 887-3903 for details.

**Old Cedar Forge Workshops**

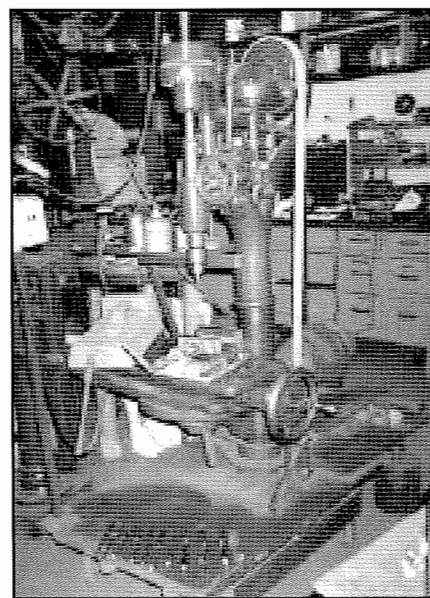
Beginning to Intermediate, October 26-28, 2001. Intermediate November 9-11. Fee is \$315 which includes gourmet meals except Friday evening. You can also "camp" at OCF. Class size is limited to eight. First come, first served. Deposit is \$150. Contact Ina Culberson at 360 275-6769 or oldcedarforge@web-o.net.

**Forges for sale** at Old Cedar Forge include two nice coal forges, \$250 each, Johnson gas forge complete for \$200, Contact Jerry Culberson at 360 275-6769.

**Little Giant Trip Hammers for sale.**

Both in excellent condition. Serial No. K7335, purchased new in 1969. Serial No. K7351, purchased new in 1977. Call Doug Cook, Lowen Corporation, 620 665-2810, dougc@lowen.com Photos available.

**Deadline for Fall Issue** is after Coeur d'Alene conference. Articles, hot tips, news, etc. are welcome!



**1910 Barnes Drill Press**, flat belt drive, 4 spindle speeds, auto feed & back gears, cross-feed table, bits, Dale Johnson 503 289-4894, Portland.

**ABANA Board of Directors Annual Meeting, Seattle November 1-3.**

Meetings will be at the Black Dog Forge, 2318 Second Avenue, Seattle and are open to members of ABANA. A reception for NWBA members and the ABANA Board will be held Saturday evening, November 3, at the same location. This will also be the opening of an forged iron exhibition. Contact Louis Raffloer at Black Dog, 206 443-9413, if you would like to exhibit.

**Fosdick Three Foot Radial Arm Drill Press**, 1905, Flat-belt with back gear

power feed, great condition, Bill Smith 541 374-8578 or 490-4823.

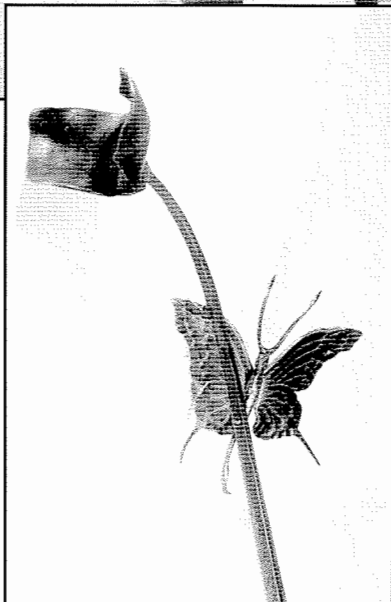
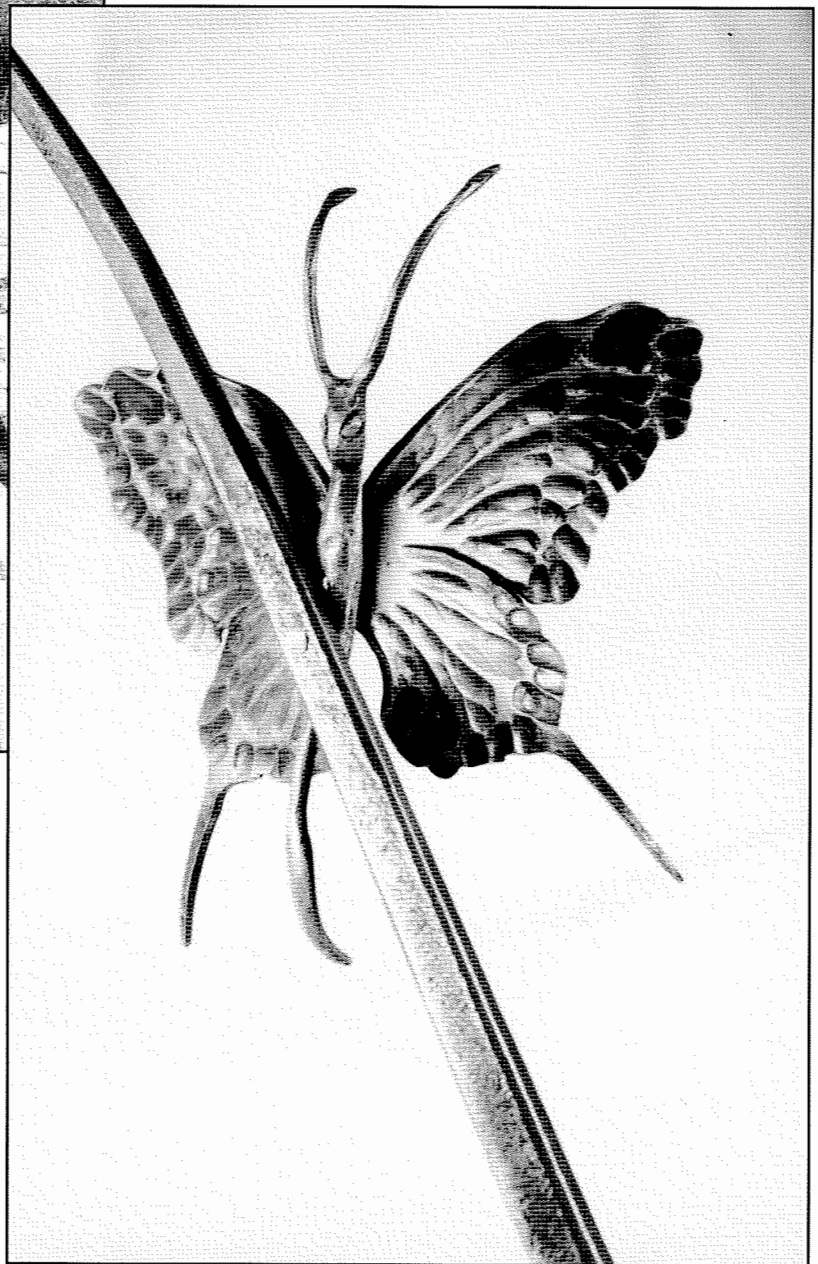
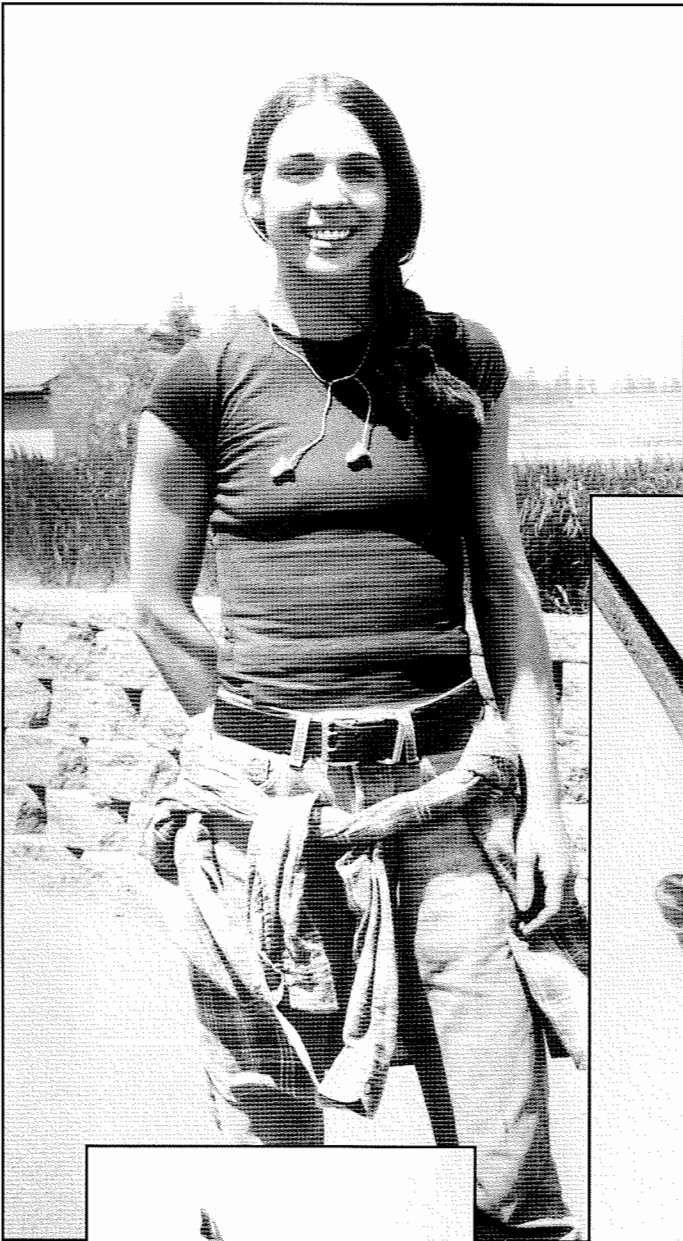
**Womens Eyeglasses** Eddie Bauer Madison Bry 140mm, found in parking lot at Smokefarm by Gene Chapman. Will be returned upon payment of generous reward. 360 297-2495.

**Treadle Hammer**, ABANA plans, 75# head, \$400, also **P&H Stick Welder**, \$110. John Hicks, 206 824-8933.

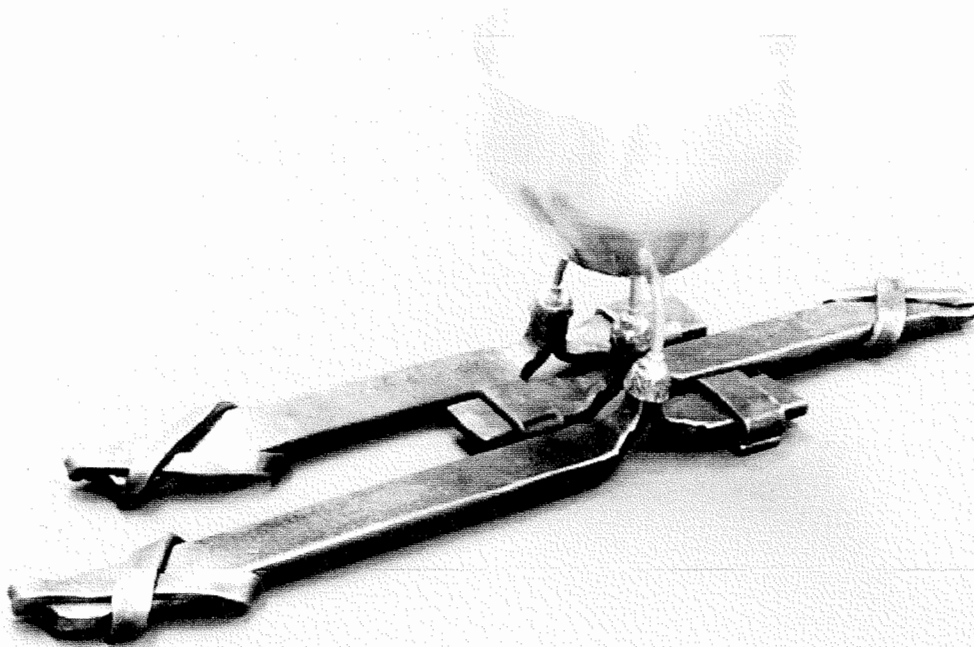
**Pneumatic Hammer**, Kinyon design, 120# head, uses 90 psi, 1550 lbs., works 1 1/4 stock, \$1,200, Mack, 360 336-3939 days, 360 424-6325, evenings.

# Sarah Grace Parker

*These creations are forged from architectural bronze, copper and mild steel.*







Christa Fairbrother *Gladioli Snifter*

*HOT IRON NEWS*  
**Jerry Kagele, Editor**  
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