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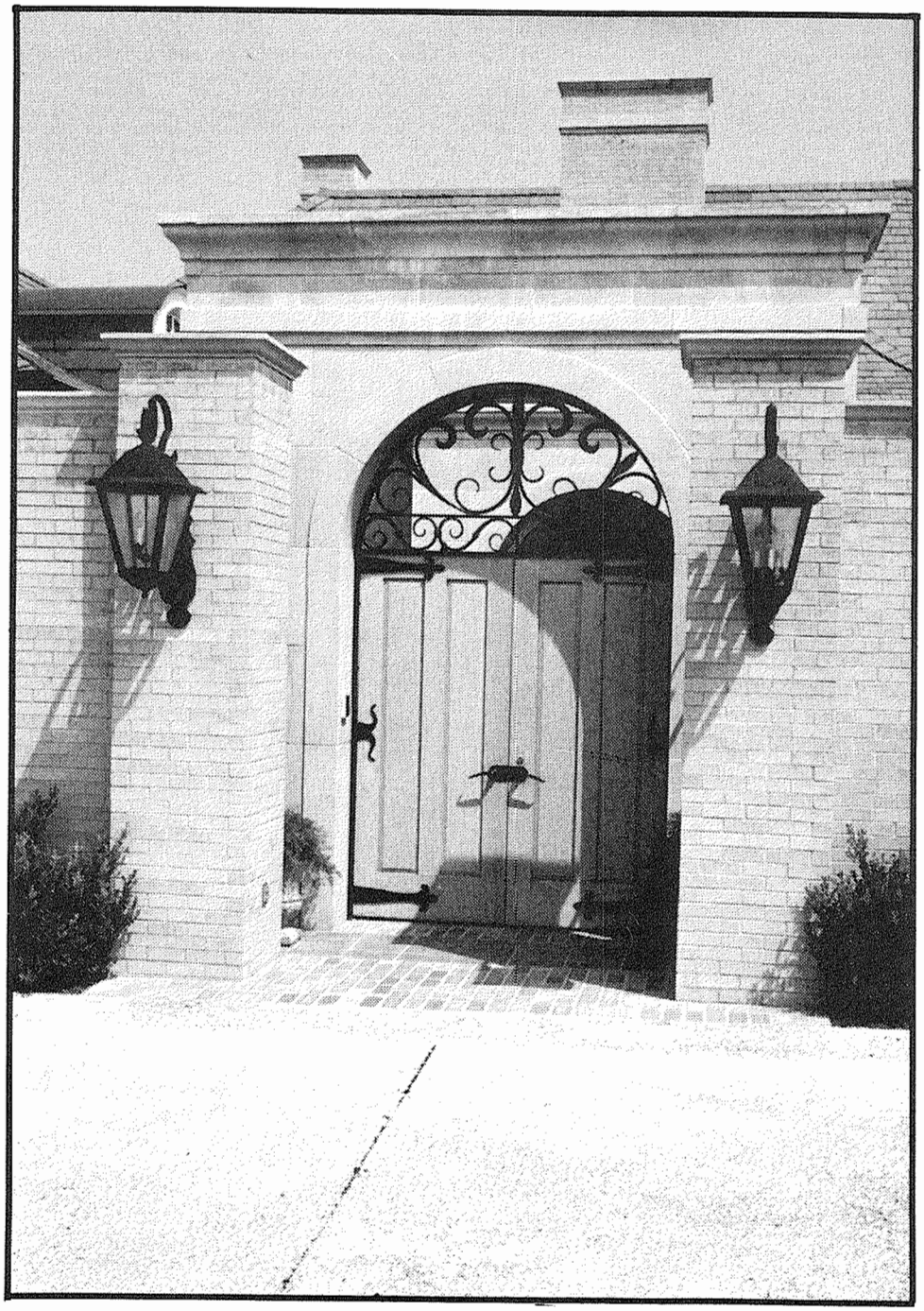
NWBA

CHAPTER OF ABANA

Hot Iron News

-- Voice of the Northwest Blacksmiths Association



August 1989

Northwest Blacksmith's Association
P.O. Box 81041 • Seattle, WA 98108

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NWBA 10th Anniversary Gathering

Northwest Blacksksmith's Association will be celebrating its 10th Anniversary, October 6th, 7th and 8th with a gathering at the Tenas Creek Logging and Railway Company, one mile west of the Paradise entrance to Mount Rainier in Washington State.

The featured demonstrators will be:

Ken White of England

Al Bart of Yreka, California

Russ Swider of Roe, New Mexico

As added attractions the following blacksmiths will also do short demonstrations:

Darryl Nelson and Terry Carson, David Thompson, Russell Jaqua, Jerry Culberson, Nahum Hersom, Phil Baldwin, Gene Chapman, Wayne Goddard, Smokey Adams, Karen Wagner, Monty Day, Russ Maugans and many, many others!

A packet of information will be sent out shortly. It will include information about lodging and camping, food, site rules, pets, sight seeing, the auction and gallery and a basketry class offered by Kathy Bay.

Registration fees are as follows:
Members - $48
Non-members - $63 (includes membership fees and a subscription to Hot Iron News
Family members - $22 each
One day pass - $12, $24 with banquet Saturday night (Non-members add $15) $4, $16 with banquet for family members

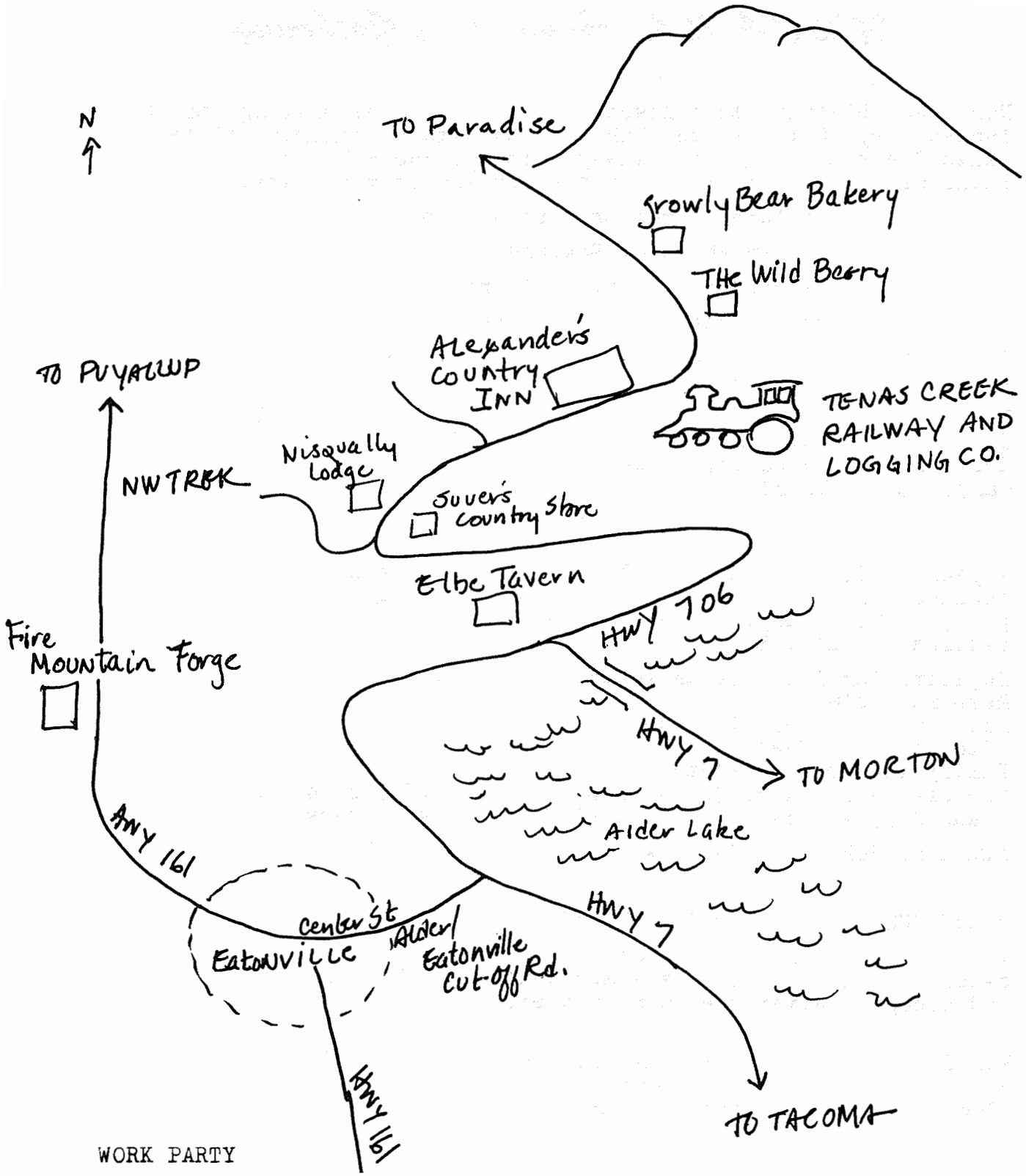
DEADLINE FOR REGISTRAION WITH BANQUET: SEPTEMBER 30th!

VOLUNTEERS ARE NEEDED FOR THE 10th!

Volunteers are needed to man the gallery and set it up, for the security detail at the gate and helping with parking, site set-up and clean-up after the 10th is over.

For further information contact: NWBA, P.O.Box 81041, Seattle, WA 98108. OR call Karen Wagner at (206)385-0256, Gene Chapman at (206)297-2495 or Jerry Culberson at (206)275-6769.

COVER: Russ Swider, entry made to reproduce 17th century French country home. Kimsey Residence, Dallas, Texas. Russ also built the 3 inch thick mahogany doors.



WORK PARTY

There will be a work party up at Tenas Creek Logging and Railway Company in preparation for the Fall's 10th Anniversary Gathering. Anyone with a Weedeater, a pair of hands, carpentry tools, paint brushes, time or the desire to see some pretty country is invited to join Darryl Nelson and the NWBA board as they prepare sites for demonstrations, porta potties and spectators. The party will be Saturday, September 30th. Work will start about 11 a.m. For further information please contact the Board members or Darryl Nelson at (206) 832-6280.

THE PEOPLE OF NWBA

Over the years a lot of people have served the membership of NWBA as Officers and Members of the Board. Looking back through an incomplete collection newsletters and issues of the Hot Iron News the following people deserve mention and thanks:

President -

Jerry Culberson, Darryl Nelson, Jim Garrett

Vice-President -

Lloyd Hedglin, Jerry Culberson, Russell Jaqua, George Rolstad

Treasurer - Tom Graham

Secretary - Gene Chapman

Secretary-Treasurer - Howard Swanson

Editor -

Karen Wagner, Terry Carson

Board Members -

Bill Martinez, Hugh Eddy, Ike Bay, Smokey Adams, Darryl Nelson, Howard Swanson, Phil Baldwin, Russell Jaqua, Gene Chapman, Jack Slack, Jim Garrett, Corky Storer (Corky at one time also did the Hot Iron News), Terry Carson, Dorothy Steigler, Dwight Irish, Russell Maugans, Darryl Nelson

Many members have also served the NWBA by hosting meetings and workshops. Again a partial list:

Darryl Nelson, Jerry Culberson, Dave Thompson, Russell Jaqua, Kent Rudisill, Ike Bay, Monty Day, Russ Swider, Jim Garrett, Mike Falk, Mark Solomon, Thad Adams

A partial list of the demonstrators is impressive in terms of the quality as well as the quantity:

Ivan Bailey, Phil Baldwin, Al Bart, Mark Bokenkamp, Michael Bondi, Steve Bondi, Gary Brumfield, Terry Carson, Jerry Culberson, Renato Ferrari, Fiddlin' Red, Jim Flemming, Jeffrey Funk, Jim Garrett, Wayne Goddard, Alfred Haberman, Nahum Hersom, Bernard Herr, Toby Hickman, Beau Hickory, Russell Jaqua, Carl Jennings, Stu Kendall, Russell Maugans, Darryl Nelson, Richard Pozniak, Harry Robinson, Peter Ross, Russell Swider, Dave Thompson, Frank Turley, Jim Wallace, Francis Whitaker, Ken White

Samuel Yellin Foundation

The Northwest Blacksmith Association

The Samuel Yellin Foundation
Wishes to Express Our Thanks
For Your Support
In Our Work to Preserve the Legacy & Tradition
Of Fine Craftsmanship and Good Design
In Wrought Iron and Metalwork.

Your Donation Will Be Used
In the Next Workshop Which Will
Explore The Use of the Computer
As a Design and Business Tool For the Metalworker.

This Workshop Will Be in 1990, and Will Be Held
At the University of the Arts
In Philadelphia.

For the Board of the Foundation

Jack Andrews

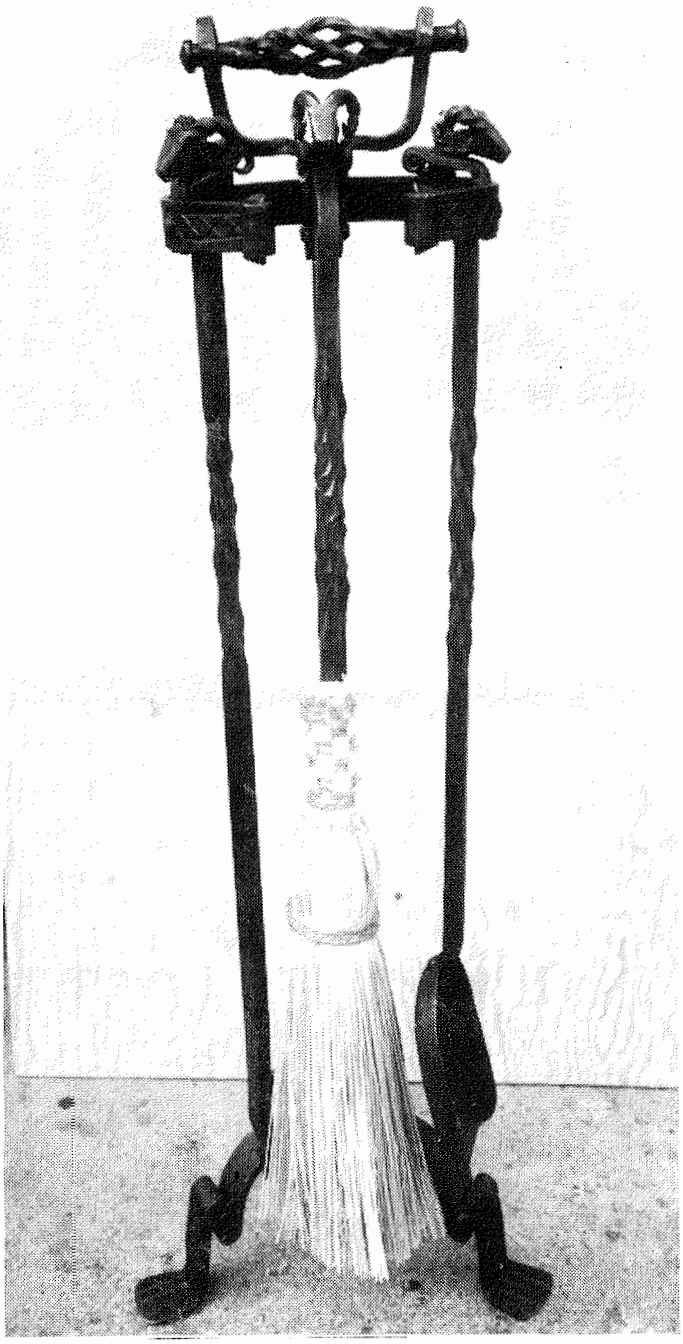
Jack Andrews
Treasurer

5520 Arch Street Philadelphia PA. 19139
Tel. 215-472-3127

AL BART

Al is a traditional blacksmith doing everything from railings to tools to repair work. He teaches the technology of blacksmithing as well as its history.

Al will show NWBA members anything they want to see. He also suggests that the members bring in old tools for him to identify.

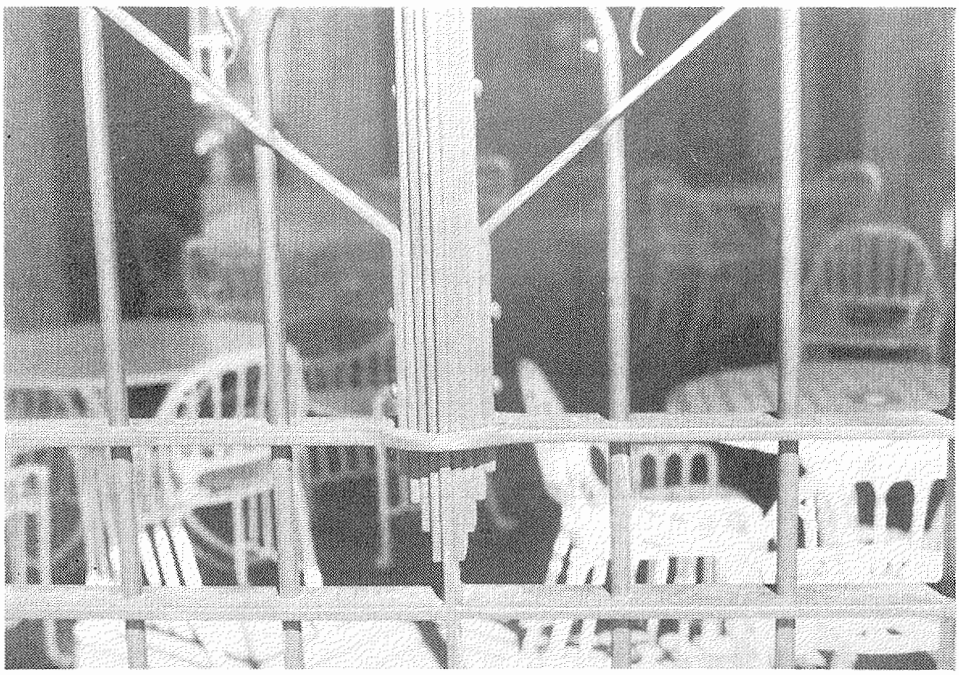


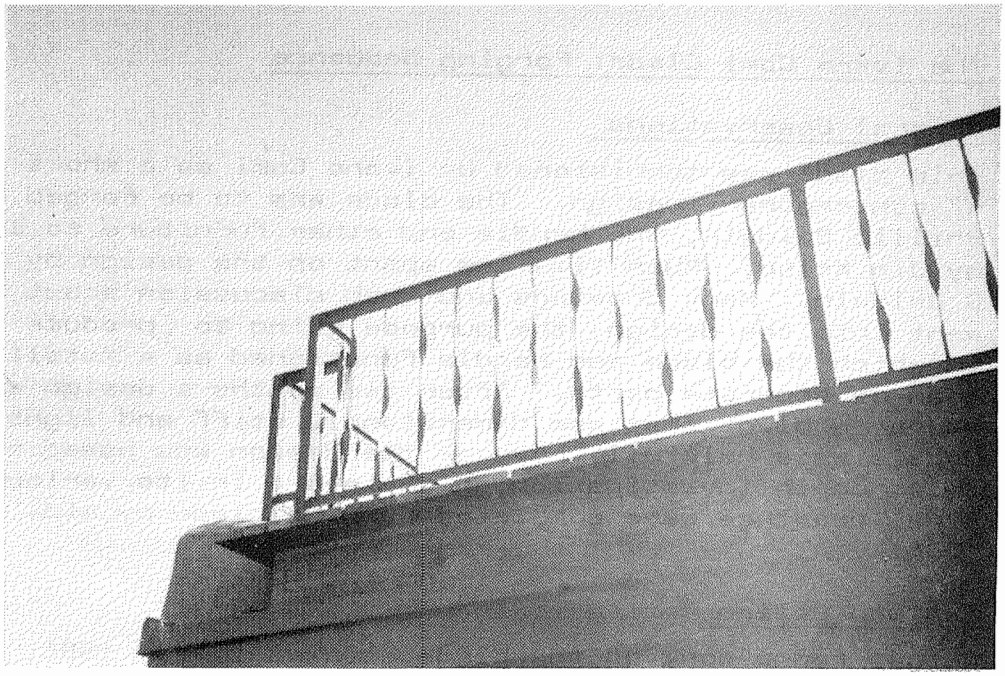
Al Bart, Fireplace tools and stand.

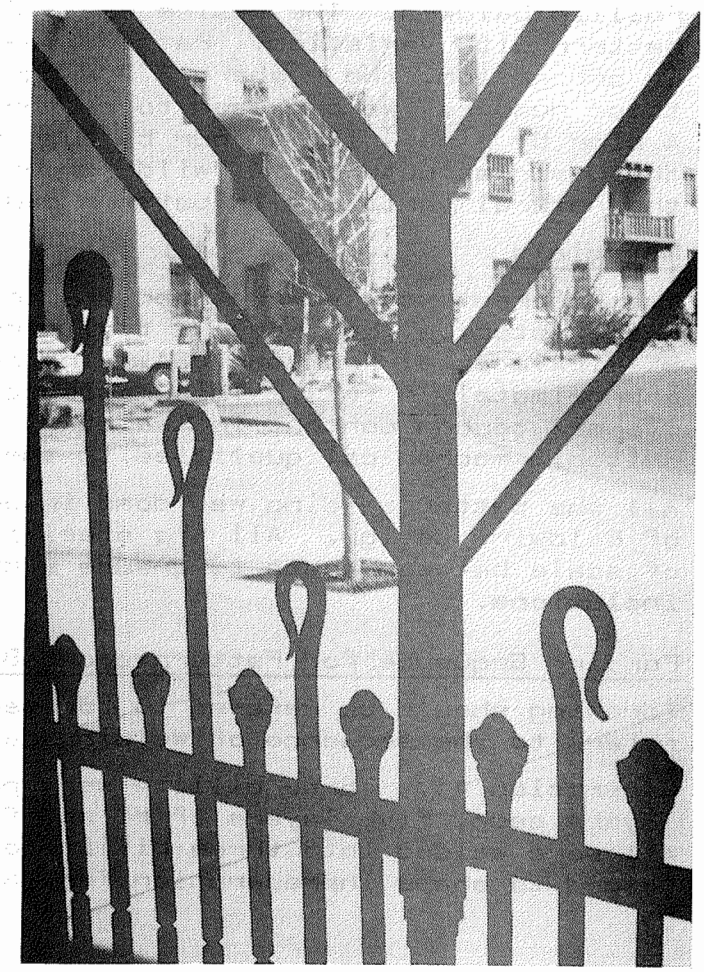
left: Renovation Detail
St. Francis Cathedral

right: Detail of 30 feet of
Railing
Slane Residence, Sante Fe

RUSS SWIDER







By Hammer and Hand
Rowe New Mexico

left: Grill Detail
El Dorado Hotel

right: Gate and Grill Detail
16' x 20' 4400#
El Dorado Hotel

The Ivano Comi Blade: Forging Sequence

General Observations

This blade was commisioned by Ivano Comi as a short sword of contemporary design. The blade was to be forged by Phillip Baldwin, the handle and other furniture to be made by Jim Kelso. Much time was spent on the design by Kelso & Baldwin. Many drawings and much discussion about intent went into the design, the purpose being to produce a piece in which the blade and handle functioned as a totality rather than as separate parts. After two months a design was arrived at for a blade that was dimensional, stiff and light. Historic models were helpfull, however the design was based more on an in depth investigation of the sword in its various aspects. Final drawings were completed for the blade by mid- March 1988.

Pattern Design

Actual forge work on the blade started in May 1988. Before starting, much thought was given to the pattern by the smith, Phillip Baldwin. The desire was a fairly dense, striking pattern with variation. Pattern tends to be somewhat mathematic in conception, the numbers 2,3,4 and mulitples and squares of these numbers were chosen to be the basis of the pattern. A nine by nine, with a four by four core was arrived at as the basic structure. A "wild" group was introduced to accent the natural variation in pattern caused by forging.

Materials

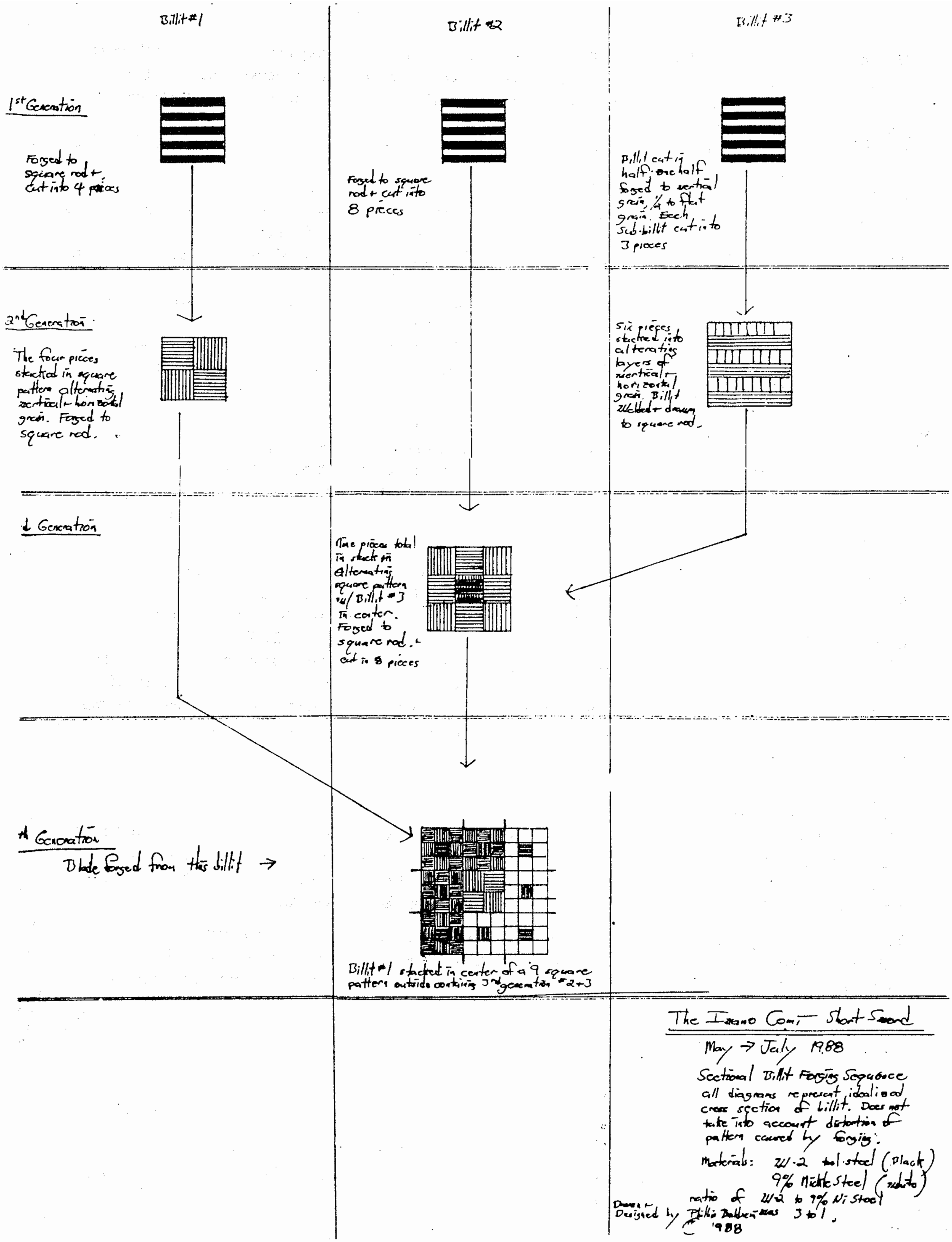
Two diferent steels were used in the preparation of the pattern welded stock. They were W2 tool steel from West Germany and 9% Nickle Steel from the USA. The ratio of W2 to 9% NS was approximately 4 to 1. This ratio was used to ensure an overall carbon content in the steel sufficient to achieve suitable mechanical qualities in the finished blade.

All the patternwelding was done in a propane fired furnace of Baldwins design. All the steel pieces were ground clean of scale between heats to ensure a steel free of major inclusions.

Forging Sequence for Patternwelded Billit

(drawing should be refered to for sectional diagrams. "Generation" refers to the sequence of welding heats.)

Generation #1. Three billits were prepared for welding, nine layers each, five layers of W2 and four layers of 9% Nickle Steel. All were welded into three billits of nine layers each and forged to shape inpreparation for the next generation.


Billit #1
Billit #2
Billit #3
1st Generation
Forged to square rod + cut into 4 pieces
Forged to square rod + cut into 8 pieces
Billit cut in half. one half forged to vertical grain, ½ to flat grain. Each sub-billit cut into 3 pieces
2nd Generation
The four pieces stacked in square pattern alternating vertical + horizontal grain. Forged to square rod.
Six pieces stacked into alternating layers of vertical + horizontal grain. Billit welded + drawn to square rod.
↓ Generation
Nine pieces total in stack in alternating square pattern w/ Billit #3 in center. Forged to square rod + cut in 8 pieces
4 Generation
Blade forged from this billit →
Billit #1 stacked in center of a 9 square pattern outside containing 3rd generation #2+3
The Izano Comi Short Sword
May → July 1988
Sectional Billit Forging Sequence
all diagrams represent idealized cross section of billit. Does not take into account distortion of pattern caused by forging.
Materials: W-2 tool steel (black)
9% Nickle Steel (white)
ratio of W-2 to 9% Ni Steel was 3 to 1.
Drawn + Designed by Phillip Baldwin
© 1988

Generation #2. Billit #1 was drawn into a square rod and cut into four pieces. The grain was arranged as shown with the layers at right angels to each other. This stack was then welded into a solid billit.
Billet #2 was drawn into a square rod and put aside. It "skipped a generation".
Billit #3 was cut into two pieces and both were drawn into a flat section. One the pieces had the layers oriented parallel to the long face of the rectangular section (flat grain). The other half of billit #3 was forged into a flat section with the layers oriented perpendicular to the long face of the section (straight grain). Each half of billit three was then cut into three pieces and the resulting six pieces were then stacked alternating vertical and flat grain. The stack was then welded into a solid billit and drawn to a square section the same size as billit #2.

Generation #3. Billit #2 was cut into eight pieces and arranged in an alternating vertical/horizontal pattern as in the diagram with billit #3 in the center of the 3x3 square. This stack was then welded and drawn into a square rod the same size as billit #1. Billit #1 skipped this generation.

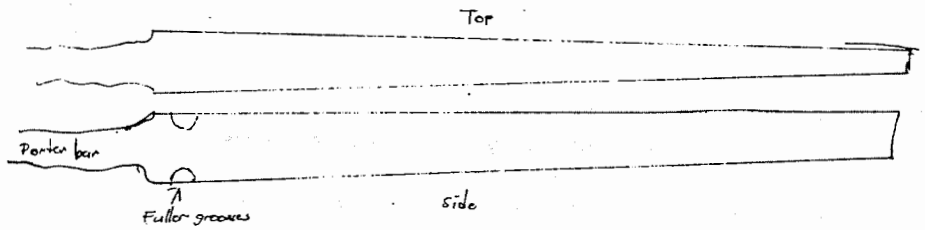
Generation #4. Billit #2 was cut into eight pieces and arranged in a 3x3 block with billit #1 in the center. The pieces of billit #2 were rotated to be a 90^{o} to each other, in effect creating a 9x9 billit with a 2x2 center. This arrangement precludes any weld seams through the center of the blade billit. This stack was then welded solid and forged into a tapered rectangular billit about 12 inches long and 1.25 x .75 inches at the thickest part. This was the blade billit.

Blade Forging Sequence

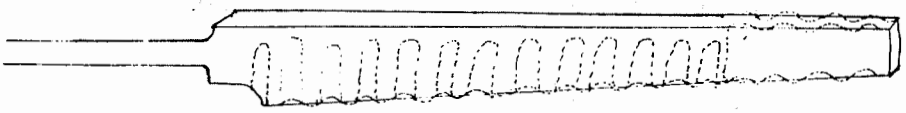
The relationship between pattern and form was a very important aspect of this blade. Pattern developement, the release of the pattern potential in the billit, had to account for the shape of the finished blade both in profile and section.

The third of the blade from the point back was to be double edge. The billit was formed into a wave for this section. The two thirds of the blade toward the ricasso were to have a "T" section. Grooves were fullerd into the blade, shallow on the spine and deeper towards the edge. The resulting blade billit had a sine curve on the edge and false edge and little or no sine curve on the spine. The grooves fullered in the blade billit were then ground out, with a loss of about 25% of the metal. The grinding allowed the cross section of billit #3 to appear in the surface of the blade billit.

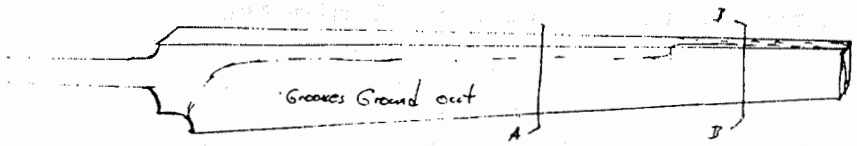
The blade was then drawn to length (18+") and forged to final shape. Both gas and charcoal fires were used, because of



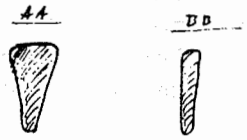
Billet Forged to rough tapered bar + fullered approx 12" long

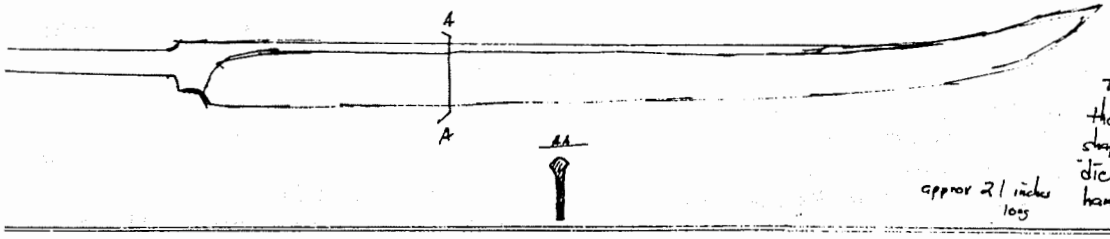


Tangs pulled from billet
Grooves fullered in billet as shown



Grooves then ground out. This develops the pattern





Blade blank then forged to shape using dies + hand hammer

approx 21 inches long

The Izumo Coni Short Sword

Pattern Development + Shaping Sequence
Designed + Drawn by the Smith
Phillip Baldwin © 1988

the different types of heat needed for various aspects of shaping. The "T" section was formed using a die made specifically for this blade. After forging the blade was annealed to soften it for filing.

Rough Grinding

After annealling the blade was ground to shape. The edge was ground and all scale removed. A variety of tools were used including disk grinders, die grinders files and a slow wet stone. The blade was lightly etched to reveal the pattern.

Heat Treatment- July 21, 1988- afternoon

The blade was lightly preheated in the forge and austentized in a molten salt bath at 1500°F for five minutes. The blade was then quenched in oil and withdrawn while still warm. At this point the large warps were taken out of the blade. (It should be noted that a curved blade with no flat surfaces is very difficult to straighten as there are no reference points. Complicating this is the smiths thick glasses, which distort straight lines into curves.) After the blade cooled to room temperature it was then reheated in a hot oil bath to initially temper it for 20 minutes. After this the blade was allowed to cool and ground lightly on the edge and carefully examined for flaws and straightness. The steel was checked for hardness and found to be too hard. The blade was allowed to sit for several days to achieve full hardness. Over a period of several days it was tempered and straightend hot (400°F) and various cutting tests performed. When it was judged that the blade was at the correct hardness, tempering was finished. The blade had excellent flex with great sharpness.

Finishing

The edge was then ground to final shape. The point of the blade was left fairly stout for strength and the edge made thicker or thinner depending on the part of the blade. Grinding was done on a belt sander and a slow wet stone. The blade was then stoned all over with a coarse aluminum oxide stone, lightly etched and sent to Jim Kelso for rough handle fitting. It was at this time that faces were noticed in the pattern. This was not anticipated.

Upon return from Jim Kelso, the blade was hand finished with series of hand stones of varying fineness and origin. The final finish was with #600 emery paper. It should be noted that the "T" section of the blade made it very difficult to finish. After finishing the blade was etched in a ferric chloride solution to give a topography to the pattern. Post-etch treatment included rubbing with baking soda to kill the acid and polishing with Simichrome metal polish

and steel wool. The blade was then shipped to Jim Kelso in the beginning of September.

Ending Observations

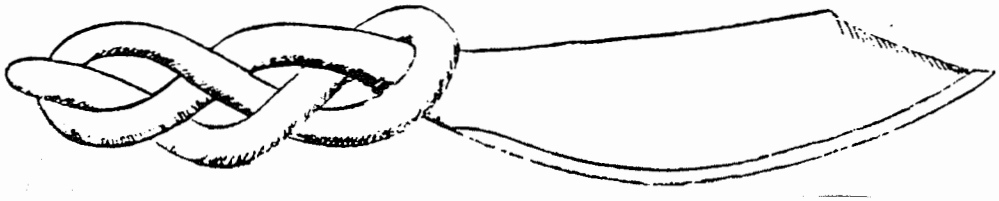
I hope to be able to see the finished sword with handle and scabbard at some time. It was an ambitious piece and I gave it all I had. The piece required that I not work on it if I was not feeling well, at times working on it was like dreaming. I do know it is going to a good home and this pleases me.

- Phil Baldwin

Editor's note - Phil thought this article should be entitled "A Modest Forging Project". The purpose of presenting it here is not as a 'how-to' but as an example of the documentation process that should accompany major projects. Phil made the blade for Ivano Comi of Lecco, Italy and it was delivered in the Fall of 1988.

MEETING NOTES: JULY

Once again John Jacobs brought in a piece of his handy work. This time it was a knife. As you can see, this is an interesting conversation piece. It has a tapered handle woven into the shape of a loose knot. I for one, would like to see this in a demo. How about it John? Hint! Hint!



from: SOFA Sounds, Southern Ohio Forge and Anvil. August/ September, 1989.

Some Thoughts on Leaves

by Nahum Hersom

In the Fall '87 issue of the *Anvil's Ring*, Francis Whitaker tells of the challenge of imitation. How well I know what he was up against. I have made as many as five template or pattern changes in order to make leaves for work that had to copy the original exactly. In some cases they were meant to intermingle with the original work, and sometimes only a portion of the leaves on antique work needed to be replaced.

Francis also tells of the leaves cracking or splitting. Since I do not know just where the leaves split, it would be hard to tell why it happened, but Francis did find an answer, and by persistence even made four sets. Shows you just can't give up once you have started a nice project.

I would like to offer a few suggestions for others who have similar struggles, since cracking is always a problem when metal is worked as severely as leaf work demands.

1. When shearing, be sure that your shear blades are sharp so you don't leave tags or splinter-like points along the shear edge. Also, check the shear blade clearance so it cuts clearly and doesn't leave a burr along the bottom edge of the cut. I use a Beverly shear for about 99 % of my leaf shearing.

2. File all edges with a 2nd cut 1/2 round file, and the corners with a 2nd cut or fine cut rat tail file.

3. Punch or drill out all corners of leaves; do not cut into a cut which leaves a Y or an X at the corner.

4. File corners and bevel both sides and edges all the way around the leaf. Be sure all filing burrs are removed and that all edges, and especially all corners are very smooth —almost polished. Any little nick in the corners will start a crack.

5. Unless you are using Armco Univic or Armco Blackplate, which are very low carbon steel, or sheet (made especially for deep drawing of food cans, etc.), anneal and clean leaf before hammering (ordinary hot roll or cold roll sheet).

6. When corners unintentionally overlap it means more clearance is needed in the original pattern. A quick fix can be used on a slight overlap by welding up the corner and filing, but this won't help to achieve the proper look of the leaf as intended.

7. Compression areas of leafwork crack just as easily as stretching areas if not done properly. However, both can be gas welded and filed as repairs.

8. Heavy gauge leaves that have been torch cut still need filing after grinding off the burn along the edges. Course grind wheels can leave a series of nicks along the edges, which should be removed.

9. When forming leaves be sure your tools, hammer and undertools (stakes) are large and heavy enough to move the metal as quickly as possible. When working heavier gauge metal, do not try to hammer harder with the tools you have used satisfactorily on lighter gauge sheet. The result will be loss of hammer control, so make heavier tools and let the increased weight move the metal into the desired shape.

10. Anneal frequently. Often I spot-anneal corners that have taken on that "I'm gonna crack" appearance; this includes any areas of severe working.

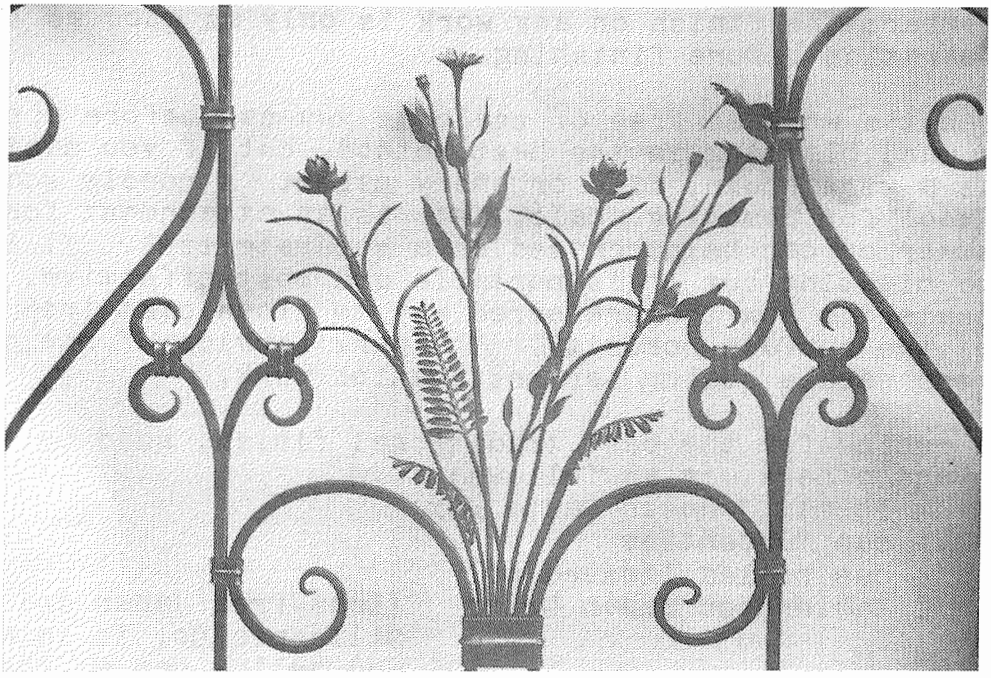
11. A V-shaped area or ridge which will be stretched very thin when finished should be worked with a stretching hammer on both sides of the area and form as you go. This helps to maintain a more even thickness.

12. Since leaves really do add to the artistic look of a project, one should pay careful attention to the "light line." The light line is what artists look for when forming objects. Hold the piece so that the available light will form light and dark shadows, etc., on the piece. This will show the contours, flat spots, and wrong hammer marks that need correcting, and any other desirable or undesirable configuration of the leaf.

Earlier I mentioned the Armco Steel Co.'s Univic low carbon sheet. It is made in computer controlled mills which eliminate much of the guesswork necessary in the old days. This Univic is not only low in carbon, it also contains 3 other controlled elements which contribute to cracking, namely phosphorous, sulphur and silicon. Back before the new computer age and the changes in steel mills and foreign suppliers, the sheet metal was high in phosphorous. This was especially true of the cold-rolled sheet, so we used mainly hot-rolled for leaves.

Phosphorous helps keep the sheets from sticking together when gang-rolled. Gang rolling consisted of stacking up 1/4" plate and rolling as a unit until the desired thickness of the sheets was reached. They were then separated and sheared to size. These sheets were basically uniform, but the cold-rolled were rolled further to more exact tolerance. As I understand the steel process, phosphorous is the culprit which reduces the ductility of iron at low temperature, and in this way encourages further cracking in sheet metal. This is also one of the reasons why it is difficult to rework sheet that has been welded, such as auto body fenders, etc.

Russ Swider, Window Grill Detail, Kimball Castle



METAL FINISHES

Joe Pehoski
Salado

(Joe presented a demonstration on this subject at the 1988 ABANA conference. The following is based on notes by Carol Spiller for the newsletter of the Alabama Forge Council. Ed.)

For purposes of discussion, this topic can be divided into three sections: operator preparation, surface preparation, and finishing. Operator preparation is a matter of safety. Just as you wear safety glasses and ear plugs, you must protect your system from the toxic chemicals in many of the finishing products. One item is rubber gloves - wear them. Most of the chemicals are toxic in some degree, and some are absorbed as readily through the skin as through the mouth and nose. A common and serious offender is xylene, widely used as a solvent.

Before using spray equipment, put on a respirator. Be sure to get one that is certified for the type of material you will be using; an insecticide filter may not be OK for paint and solvents. For long term or frequent use, a half-mask respirator is best. They cost about $20 - $35, and a set of replacement filters about half as much. For occasional use the 3M respirator #8540 is good; this is a pressed fiber mask that must be discarded after 5 hours use. It is possible to extend the life somewhat by keeping it in a ziplock bag between uses. Every major city has at least one industrial supply house; W. W. Grainger is a good one, and there are many others.

Remember: The finish on any work is only as good as the surface preparation before finishing.

Clean the work as free of scale as you can before applying a finish. Sand blasting is the best method, but if you can't sand blast use a wire brush, file or emery paper. A needle scaler is a handy tool for removing scale; this is an attachment for a pneumatic hammer or can be purchased as a separate tool. It is slower than sand blasting but it is portable and cost-effective. The needle scaler is now the preferred way to clean cast iron because it closes the surface porosity. The park service of one state prefers the needle scaler for restoration work.

The recipe for the best traditional finish, used by Francis Whitaker and others, is as follows:

1 lb can Johnson Paste Wax
1 cup turpentine
¼ cup boiled linseed oil
1 tablespoon Japan Drier (Lead-free Japan drier by Gillespie Co. is in a red and yellow can at the paint store)

Heat the mixture until blended in the top of a double boiler - never over open flame. Every ingredient is flammable, and if it starts smoking it is too hot.

To apply, first warm the work and then wipe on an even coat. Let it dry for 24 hours and then buff. For a richer finish, make repeated applications. This finish is best for interior work.

Another finish is to paint the work flat black and rub it in. You can go over it with steel wool or emery paper for highlights.

For an oil finish, remember - the thinner the oil, the finer the finish. Use only vegetable oil on pieces that may come in contact with food. (After applying vegetable oil, heat the work until it stops smoking. If in doubt, ask Grandma how to cure a new cast iron skillet. Ed.)

The newer finishes are all in the nature of paints of one sort and another. Use a product called Pre-Prime on a complex piece or one that is corroded or pitted. It is an epoxy product, so it has no solvents to react with any surface; however, it is toxic, so use a respirator and gloves. Pre-Prime has a creeping, wetting quality that enables it to penetrate rust to the base metal; it also runs, so when applying with a brush be sure to turn the work to avoid drips. Apply one coat and wait an hour or so; if the finish hasn't crept into all the crevices apply some more. Pre-Prime also seals stone, so if the work is mounted on a stone base be sure it doesn't make an unattractive puddle at the point of contact. Like other epoxies, Pre-Prime sets up very hard. The chief drawback is its sensitivity to ultraviolet. It can't be used as the only finish on work that may be exposed to the sun; it must be covered with a primer and additional coats. At about $40 a gallon it isn't cheap, but it has a long shelf life.

Extend (Item 75430) is a coating containing phosphoric acid, which turns rust to a black iron phosphate. Since it doesn't react with clean iron, the trick is to let the piece rust all over before applying the finish. It is a good intermediate treatment, between bare rusty metal and a full paint job, and if it ever starts rusting again it can be touched up with more Extend. The client can do that. The brush-on version is about the consistency of hand cream and should be applied about 1 mil thick. It won't creep, but it will fill up crevices and set up the surface for further painting. It will appear light at first, but darkens as it reacts. There is also a spray formulation.

Spatz enamels are excellent - quick drying, long lasting and forgiving of mistakes. There are many options in primers and colors. A disadvantage is the toxic xylene thinner; another thinner approved for California, which has tougher laws, costs $9-$10 per gallon. The small spray cans will cover a big area. The enamel dries to the touch in about half an hour, but takes about a week to harden fully.

In the meantime, handle the work carefully to avoid scratches. Contact Spatz at 1535 N. 7th St., St. Louis, Mo 63102, 1-800-325-2661 for a color chart and name of the nearest dealer.

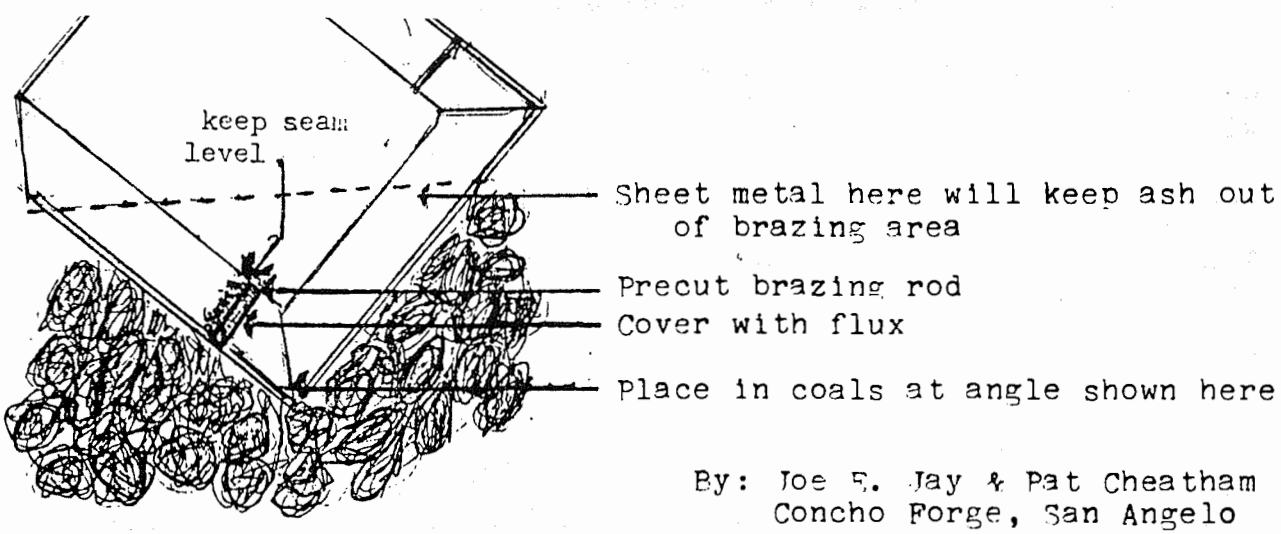
Some paint stores carry a little compressed air cylinder, which can be screwed to a glass jar to make a handy sprayer for touchups.

One-Shot brand makes high intensity colors for sign painters.

From Texas Forge Review, Texas Artist-Blacksmith Association, April 1989

Forge Brazing. Forge brazing is a good alternate method for fastening a folded fireplace shovel together, and is about the only way to fasten and seal a cowbell's halves together. This process is not limited to shovels and bells. Forge brazing can be used anywhere you need to bond two or more pieces of sheet metal together, e.g. modular roses where you have three or more interlocking components.

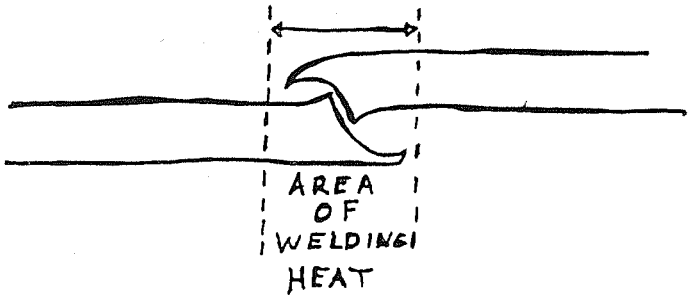
To braze a shovel, first hammer all seams flush, inside and out. Clean the inside seams and place the shovel on the forge coals keeping the seam level. (If you prop up the shovel with a firebrick you won't have to worry about things tipping over at the last minute.) Place a precut piece of brazing rod on the joint and sprinkle with flux. Bring up heat slowly, allowing both sides to arrive at the same heat at the same time. A medium to bright red will do, but keep your eye on the brass. When the brass melts the flux on top will appear glassy, plus the whole thing will seem to flatten slightly. Kill the draft and allow red to leave metal. Repeat on other corner.



By: Joe E. Jay & Pat Cheatham
Concho Forge, San Angelo

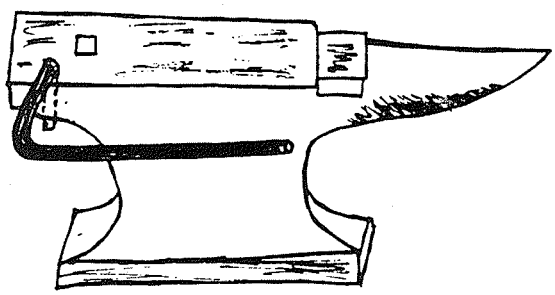
From Texas Forge Review, Texas Artist-Blacksmith Association, April 1989.

TIPS FROM FRANCIS WHITAKER: "I have enjoyed the scholarly articles on forge welding by Kent Gugler. May I add one very important point, one that has helped me and my many students in getting good forge welds. I learned this from one of my students, who was doing everything Kent tells one to do, except, not getting the welding heat on the heel of the scarf. To diagram it:



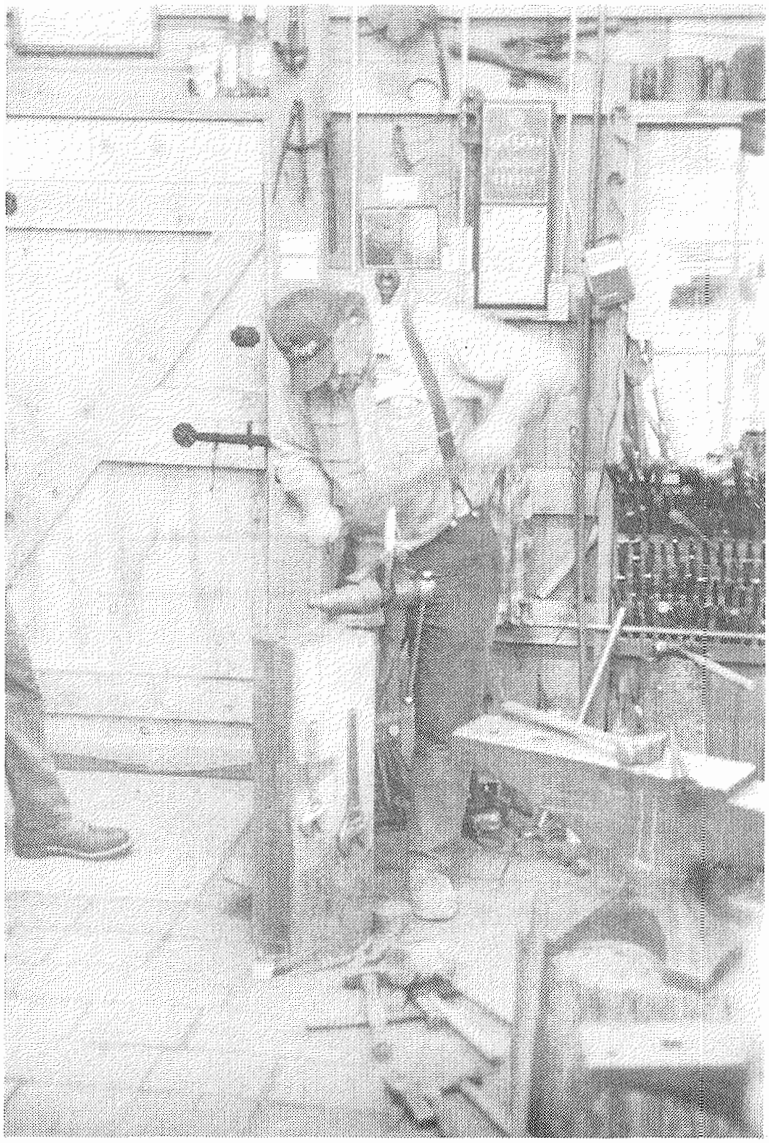
Unless the heat is on the heel, the thin part of the other half will not close smoothly.

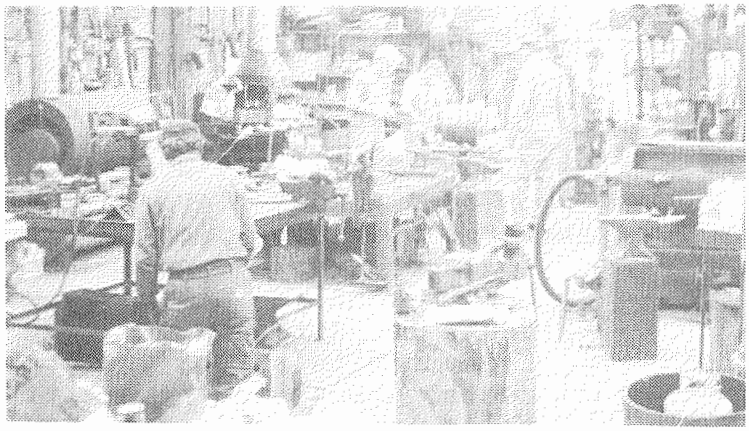
I also thought up a simple jig to hold the short pieces of a drop-the-tongs weld: Take a piece of round stock that fits the pritchel hole, make a sharp right angle bend at three inches, then another right angle bend in the horizontal plane at five inches, so the round stock is parallel with the face of the anvil and three to four inches out. The piece to be jump welded can be laid on this, giving support for the moment, then can be swung out of the way instantly. Very useful when a stand cannot be placed close to the anvil.

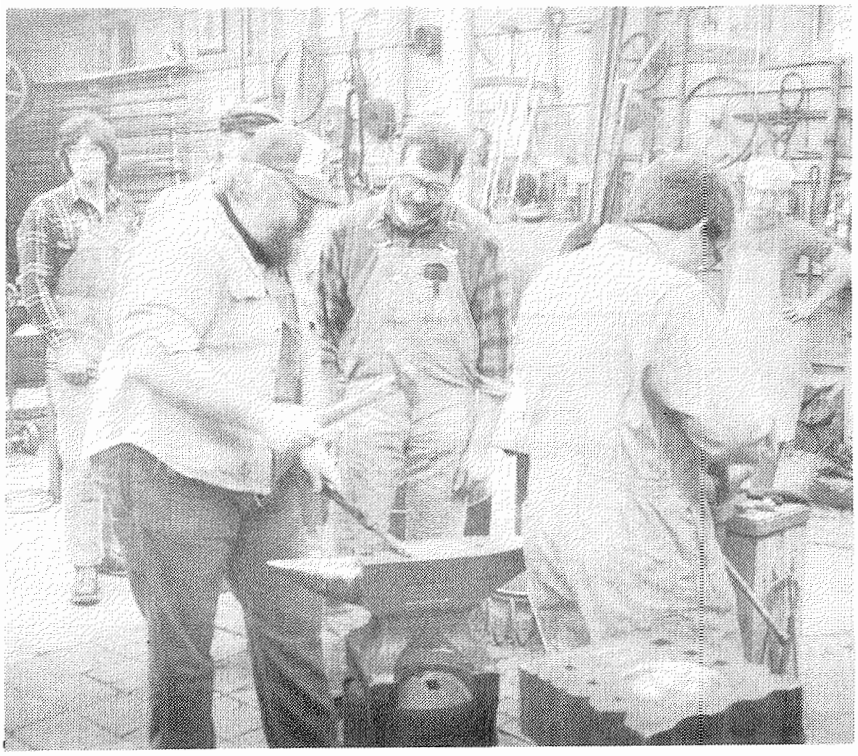


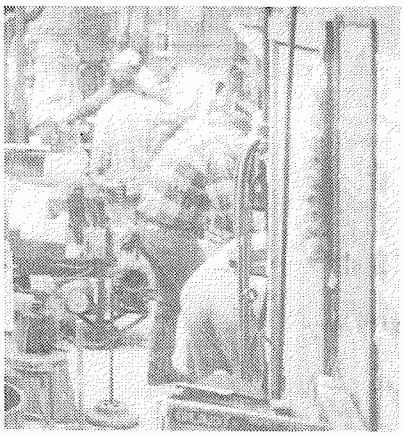
Cheers, Francis

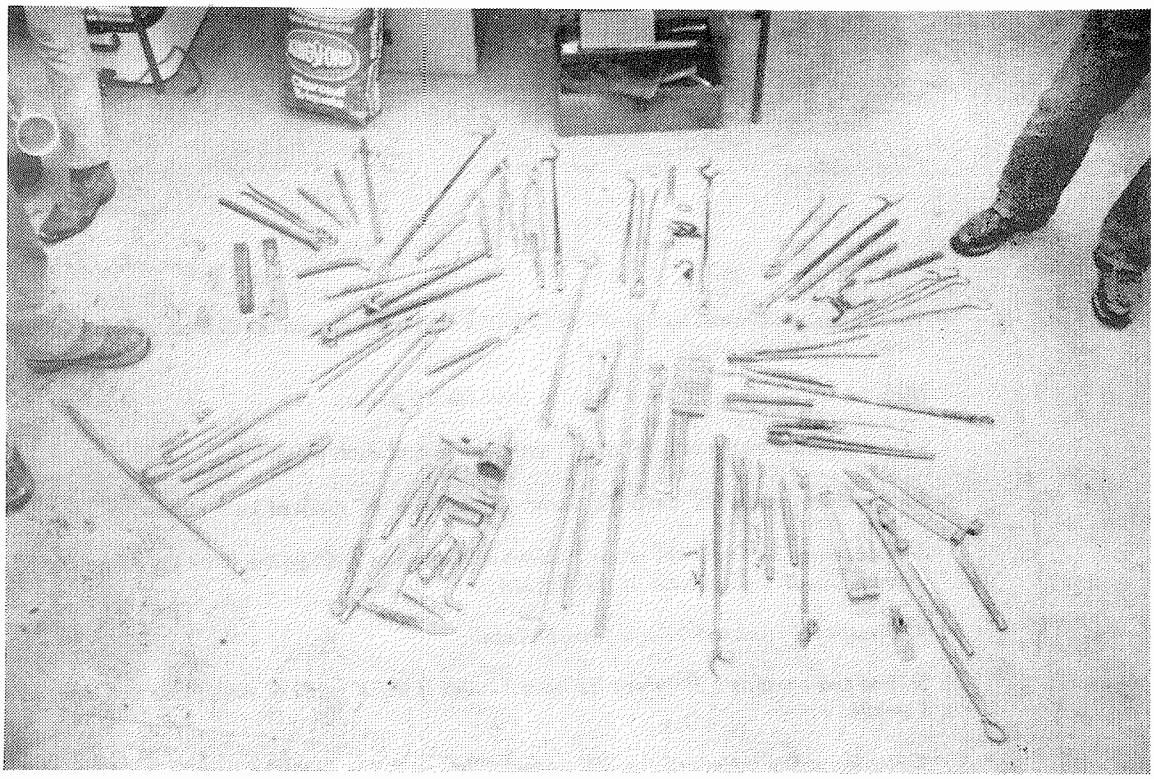
From The Anvil's Horn, Arizona Artist-Blacksmith's Association, November 1988.

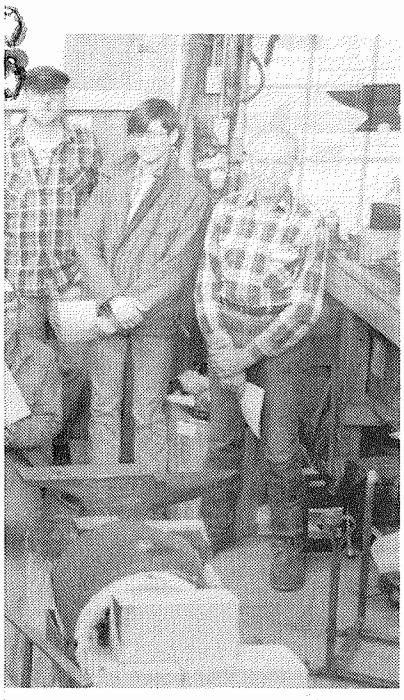






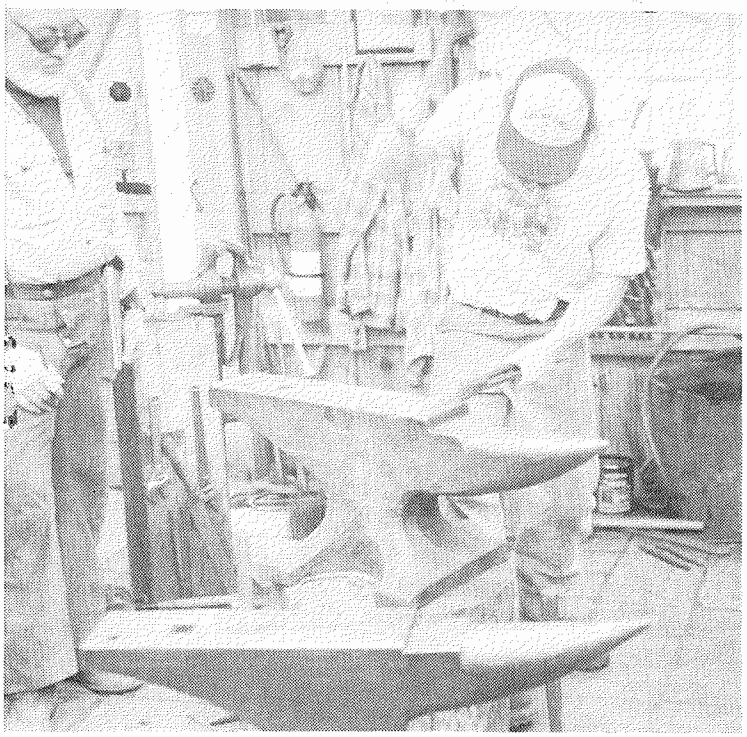






THE JANUARY NOVICE WORKSHOP

Old Cedar Forge, Allyn WA
Photos by Al Karg



POZ-TONGS *Reprint. The Pounders Press*

These notes were taken by Dave Van DeValde during the November 88 class at Robb Gunter's "The Fogery School of Blacksmithing".

Material: 1/4"x1" Strap 12" to 14" long of Mild Steel(2 pieces).

1. Center punch marks at 1 1/4" and 3" from the end of each piece.

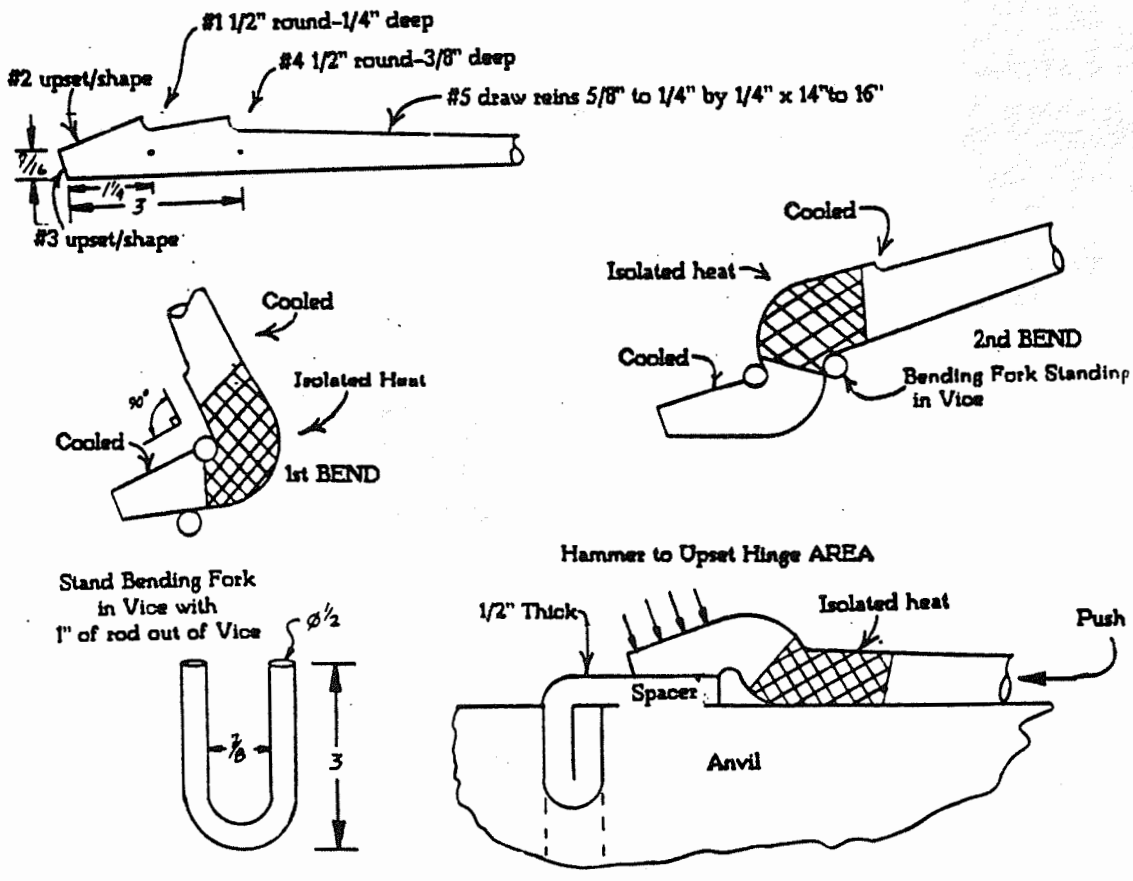
2. Heat & hammer a 1/4" deep 1/2" round fuller at the 1/4" mark of both pieces.

3. Upset/taper the front end on on fullered side down to 7/16" on the front tip. Allow the #2 surface to thicken. Do not flatten back to 1/4" thickness.

4. Upset/taper front to 90 degs. from #2 face.

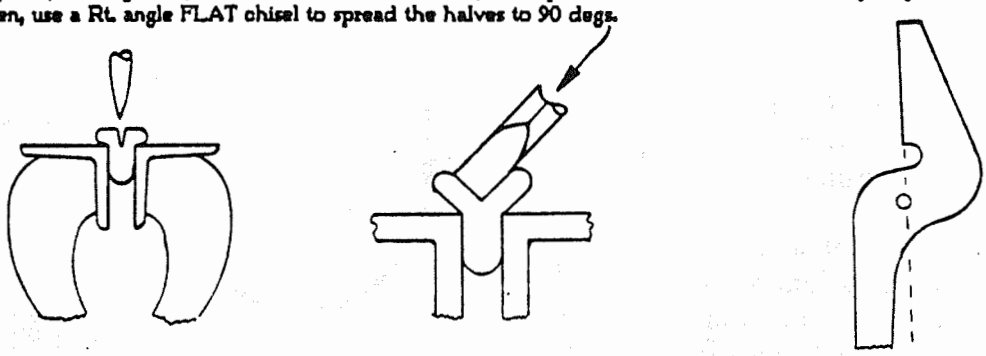
5. Heat and hammer a 3/8" deep 1/2" round fuller at the 3" mark of each piece and taper as shown in . #1—>#4

6. Starting at the bottom of the 3/8" deep, 1/2" round fuller, draw the reins from 5/8" to 1/4" on a constant taper for the 14"—>16" length.

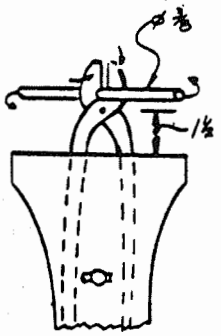


(Oops! In the last issue I printed only the first page of this article. I apologize to those of you who got half-way through and could not finish your tongs. - Karen)

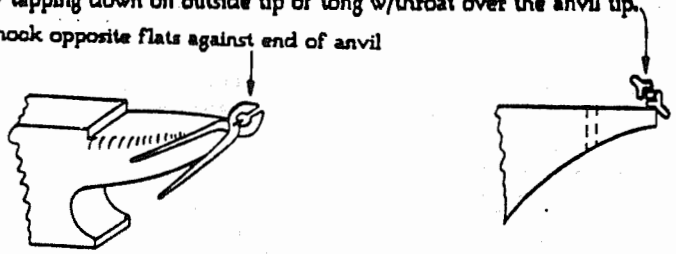
Edge bend tong head(s) by isolating heat, water cool where indicated. Yellow heat must be isolated to areas indicated onthe drawings. Bend tongs around bending "U", clamped in vice, as indicated in sketches. After both halves have been shaped, heat. Place heated jaw end in center of the vice between two "false jaws angles" (for roughness). Use a hot cut chisel to cut 1/4" deep down the center line of the upset jaw surface. Then, use a Rt. angle FLAT chisel to spread the halves to 90 degs.



Next, layout tongs to drill. Make sure that the bottom of the throat(s) are even. Mark center line, on top tong half, center punch and drill, realign over 2nd tong half, mark through top tong half, punch and drill. Put rivit through both tong halves and cut off at 1 1/2 times diameter of rivet sticking through. Place in forge, rivet head up. When hot, remove from forge, tap rivit head with shank down (through prichel hole) then carefully turn over on anvil and peen shank to round head, making sure that the tong halves and rivet head are all tight and in contact.

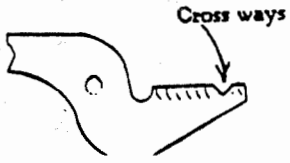


To put the hinge offset in the tonges, heat tongs to 2" below hinge on the reins. Place a rein on either side of the vice screw and tighten leaving 1 1/2" of the reins showing below the revit. Place a 3/8" rod approx. 16" long in the throat above the revit and twist horizontally in the direction indicated thereby, compressing the hinge. While gently twisting, use a rounding hammer to knock the tong jaws back vertically. Use twisting wrench to straighten and align tong jaws. Grip hot tong head in vise and bend/adjust reins so that tips of reins are 1 1/2" open open when jaws are closed. Reheat jaw area and start fine dressing/adjusting tong grip. Using a 3/8 or 1/2 sq. rod in the end of the tongs knock opposite flats against the end of the anvil. Make the jaws parallel by tapping down on outside tip of tong w/throat over the anvil tip.



When jaws are sq. and parallel, reheat and tighten (by hammer) the revit, and start "lapping" the hinge by opening and closing from red heat to until cold. File jaws parallel, dressup squares and file (w/sq. file) cross ways.

The perpendicular "grab" on the tongs must match top and bottom. Heat and bend the ends of the reins slightly outward (for ring keeper). Round all coners and wax or finish as desired.



from The California Blacksmith, California Blacksmiths Association May, 1989. (NWBA does not recieve Pounders Press)

Brake for a Power Hammer

Steve Bloom

After struggling with the adjustment of my 50lb. Little Giant Hammer, I decided to follow Fred Caylor's advice and fabricated a brake. The basic design was suggested to me by Steve Schwartzer. The basic elements are (1) a pivot bracket; (2) a spring support bracket; (3) a brake shoe; (4) a spring; (5) a control rod; and (5) block adjustment shoes (optional) (Fig.1). The brackets were cut from a 1/8" thick steel sheet, the brake shoe was 1/2 of a leaf spring (2" wide & approximately 21" long), the spring was a spare (see plans for the Treadle Hammer available from ABANA) but a car-hood spring should do, and the rest came out of miscellaneous scrap.

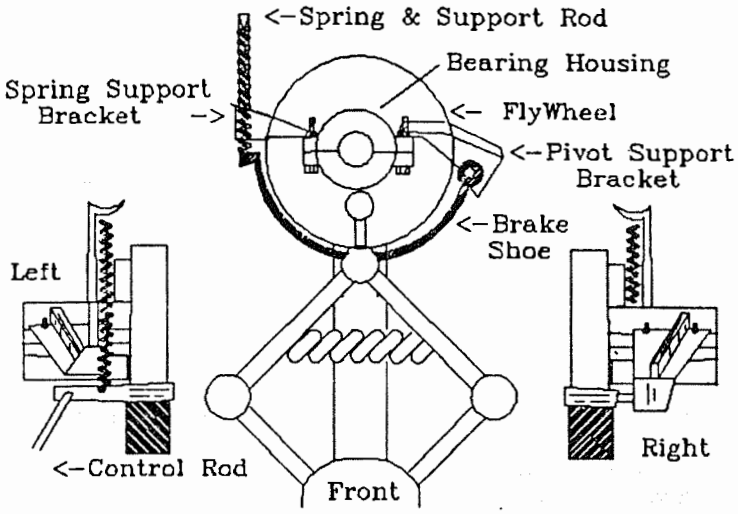


Figure 1: Overview of brake & components

Elements of the design will have to be adapted depending on the exact configuration of the hammer in question, so apply the following description with discretion. The first step consists of creating the support brackets (see Fig.2). Each bracket is hung on the hammer from a pair of bolts which close the forward bearing journal. Being cautious, I worked on one side at a time (thus allowing the other side to continue clamping the bearing). My hammer rotates clockwise (as viewed from the front), so the pivot bracket was installed on the right side. The pivot bracket must be constructed so as to place the pivot pin close enough to the flywheel so that the brake shoe just clears the flywheel. The pivot bracket was deliberately built too long. After placing it in position, it was then bent downwards until the pivot pin was in the correct position. A 1" x 1/4" bar was then forged to match the curve of the bracket (from between the nuts to the outer edge) and was welded in place. This bar acts to provide rigidity to the bracket and locks in the adjustment due to the bending of the bracket. The pivot pin can also be bent (near its exit from the bracket) to further fine-tune the alignment. After the final welds, the bracket was wire brushed, primed and installed.

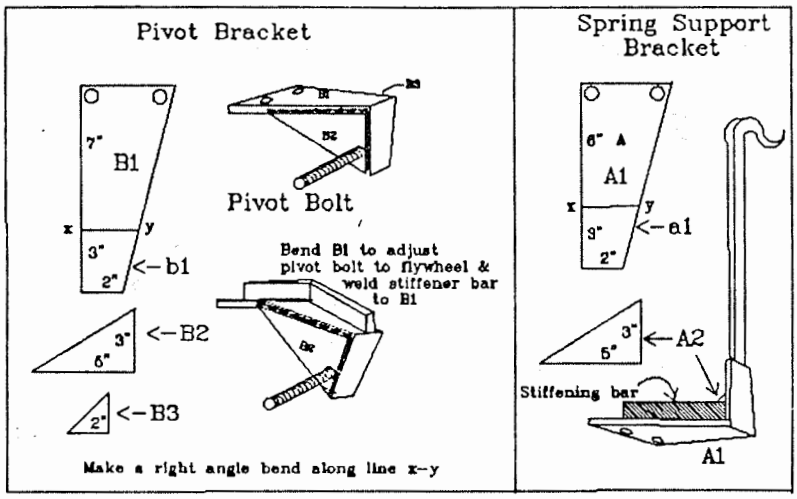


Figure 2. Details of support brackets

Be careful in retightening the bearing journal bolts - too tight and the hammer will not operate, too loose and the bearing won't be well supported.

The spring support bracket has a similar bar welded into it to provide rigidity (but the bracket need not be bent). The length of the spring support rod should be dictated by the length of the spring. The rod in my installation was approximately 14" long. The bracket is bolted in place on the opposite side of the bearing mount.

The brake shoe was constructed from half of an old leaf spring (I'm lazy - it already had an eye and was partially curved to boot). The curvature of the leaf spring was increased to match the diameter of the flywheel, a right angle bend (away from the flywheel) was made on the eyeless end, a bar was welded into the angle (see Fig.3), and the shoe was allowed to slowly cool (try to keep the eye as cold as possible if you cannot easily remove the rubber sleeve and bushing - even then, try not to breathe the fumes). A series of 1/8" holes was drilled every 4 to 6" along the length of the shoe. After priming, a strap of heavy leather (1/4" thick x 2" wide x 19" long) was contact glued and riveted (using 2-part leather rivets) to the inner surface of the shoe. The rough surface of the leather was positioned towards the flywheel. The shoe was installed by slipping a bushing and washer over the pivot pin so that the shoe was aligned with the flywheel and then clamped in place with another washer and a lock nut.

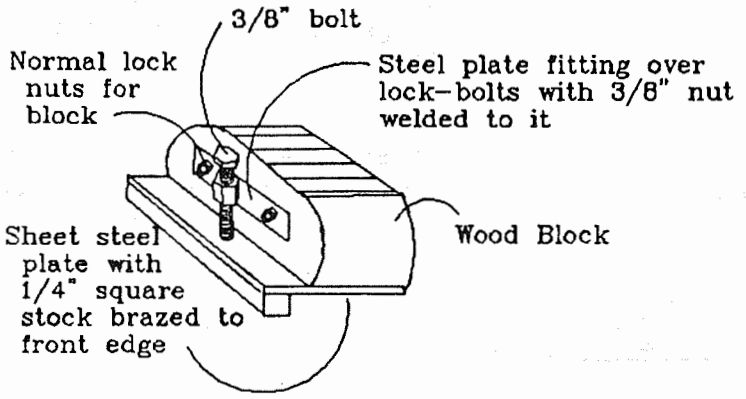


Figure 3: Block adjustment devices

The spring was stretched between the top of the support rod and a hole drilled in the control bar of the shoe (see Fig.1-Left view). A rod extended from the rear of the control bar to a turnbuckle attached to the foot lever of the hammer. Adjust the turnbuckle until the brake releases just as the clutch of the hammer engages. When adjusted, you will be able to stop the hammer instantly and also be able to incrementally position the head to any position that you wish (i.e. you can use the beast to strike single blows if you want to).

The final wrinkle arose from my frustration with shims and adjusting the wooden blocks (see Fig.3). The adjustment shoes were made of 16-gauge steel with 1/4" square stock brazed on their leading edges. After installation of the adjustment devices, block adjustments consist of backing off the lock-nuts, screwing the adjustment bolts in (or out), and retightening the lock-nuts. If I had built the brake before the adjustment shoes, I might well have been satisfied with shims. The total fabrication time was approximately 4 hours and due to a decent scrap heap, the cost was negligible.

ADDITIONAL COMMENTS BY FRANCIS WHITAKER

May I add "Amen" to Nol Putnam's fine article on running a business and staying in business.

Nol's record of six hours chargeable time per day is exactly my own experience. Working alone, some of the horrible overhead and bookkeeping may be reduced, but the $40.00 per hour is not far off. One thing I emphasize, and that is, for many years to come (and I still do it) one must charge to one's self "Learning Time," Test, or mistake, pieces one cannot expect to be paid for; it is all part of the learning process.

One thing I have found helpful. I make a complete record of each job, not only time and material, but a detailed record of EVERYTHING that goes into the job. All cut pieces and collars are very carefully listed, how many pieces, how long, how much they stretch in forging a scroll, how many collars, what dimention they fit, etc. These records are filed according to classification - gates, door hardware, chandeliers, railings and fireplace tools.

I can go back thirty years or more, pick out a similar job, add the inflationary cost, and find it a tremendous help in pricing a new job. Such a careful listing of ALL pieces that go into a job eliminates that sad feeling when you find out you have forgotten some parts, and you have to go back and forge and fit a few pieces that you should have done in the first place.

Try it!

Francis Whitaker

From Newsletter of the Pittsburg Area Artist-Blacksmith Association, March 1989.

August 1, 1989

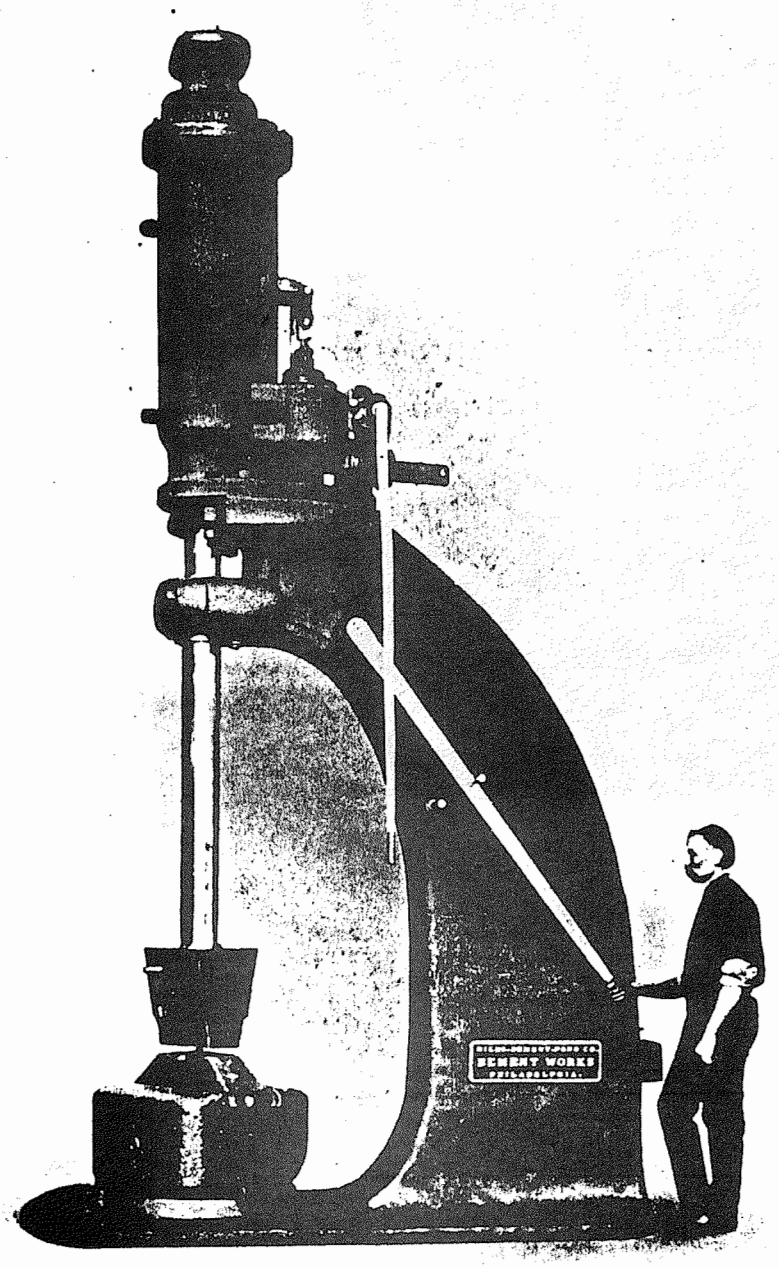
Dear Gene,

Enjoyed the last Hot Iron News. The 4000 and 5000 steam hammers - I drove them back in 1946 to 1950, Union Pacific Railroad. I liked the single arch the best. They were a lot easier to work under. That was in the steam engine days. The hammersmith forged all the operating parts of the engine. In those days we had hammersmiths, heavy fire-smiths, side fire-smiths, heaters, welders and helpers.

If it wasn't for the blacksmith, this country would never have been built.

Merlin Troska
Blacksmith for 36 years
Retired at 61 in 1980

P.S. You guys are doing a good Job. Keep the good work up.



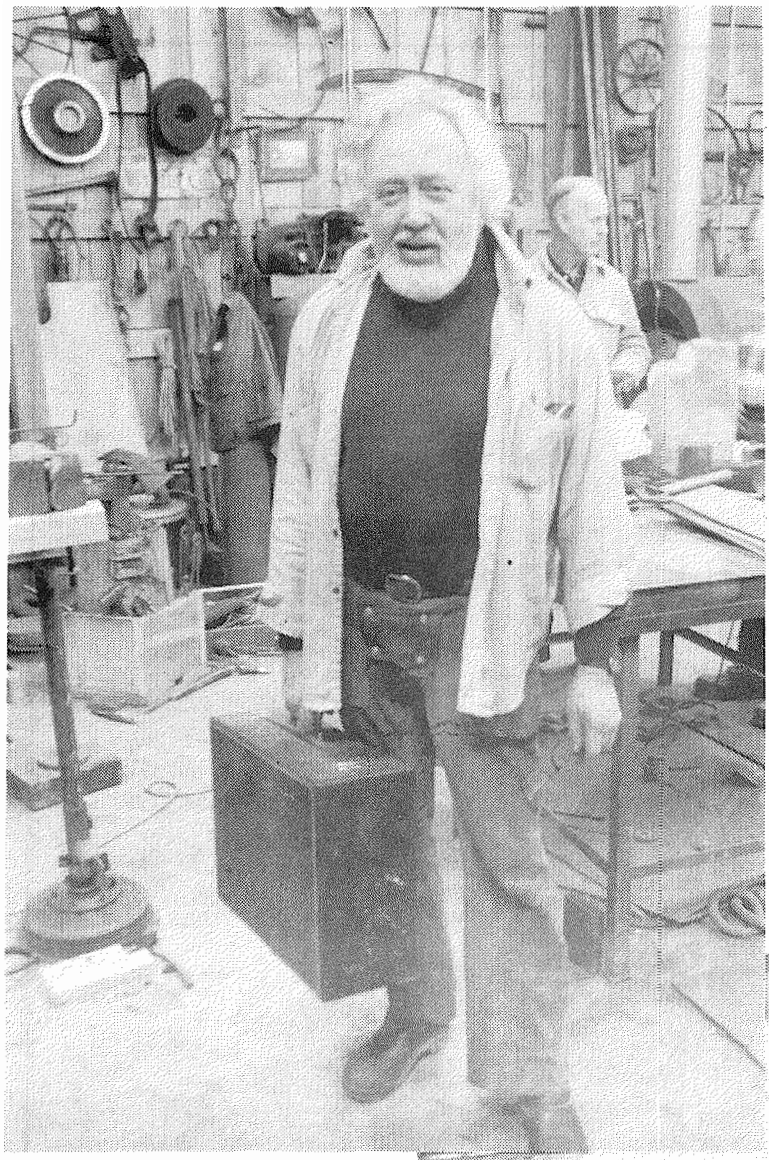
1616

1600 AND 2700-POUND SINGLE OPEN FRAME STEAM HAMMERS

For locomotive frames or similar work

TABLE OF PRINCIPAL DIMENSIONS

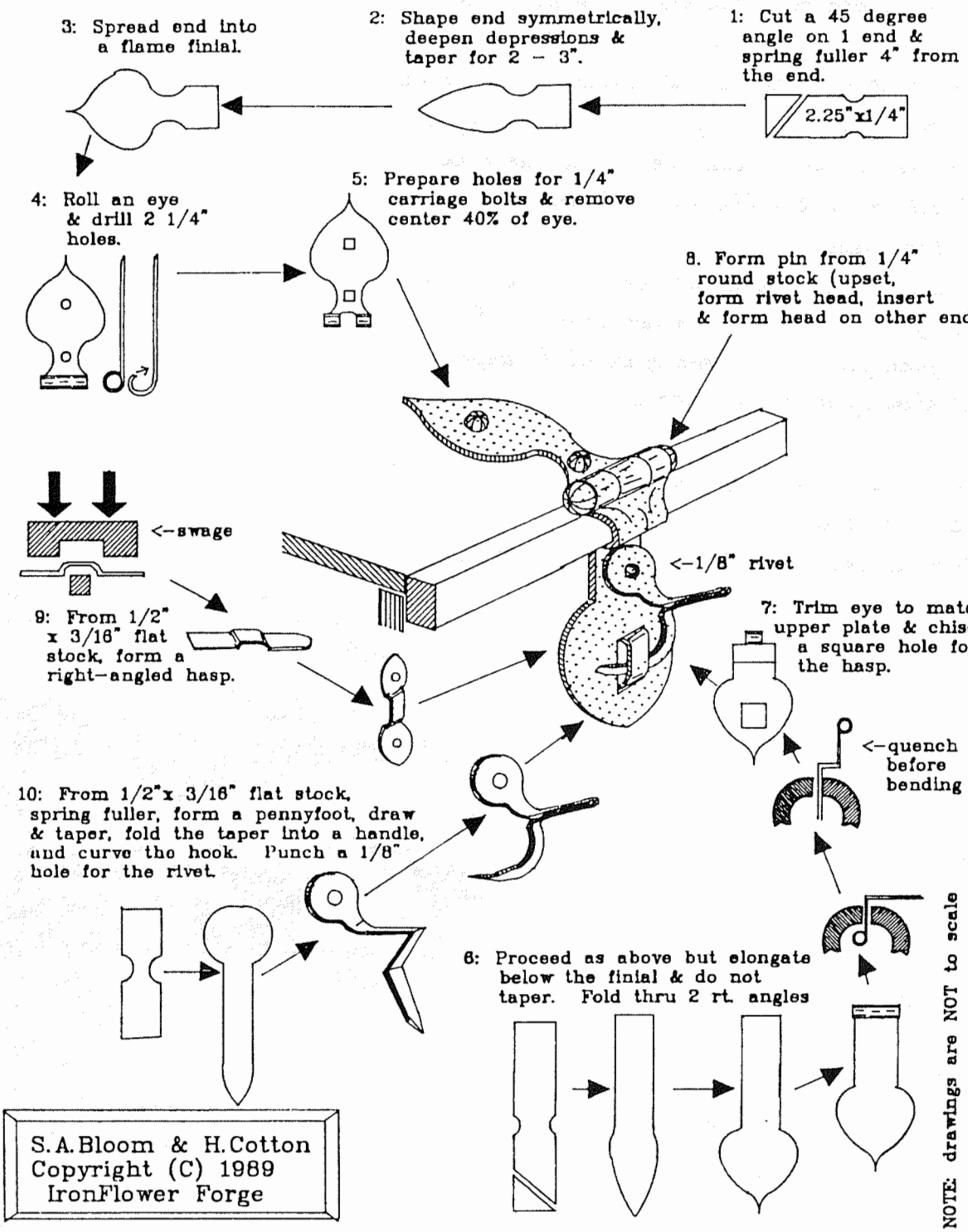
Rating of Hammers Pounds	Diameter of Cylinder		Stroke		Usual Die Face		Code Word	
	Inches	Mm.	Inches	Mm.	Inches	Mm.	Without Anvil and Dies	With Anvil and Dies
1600	13	330	45	1143	7 x 12	178 x 305	TOZDI	TOZGU
2700	15	381	48	1219	8 x 15	203 x 381	TOZED	TOZHY



Have forge, will travel?

Mike Falk and his very portable propane forge. Photo by Al Karg.

Chest Latch



Dear Karen & NWBA Friends,

Jerry has probably told you we have went back to store keeping. We purchased our store back in March. So I'm affraid blacksmithing is going to be on hold till we get the store paid for agin. We have the store open 80 hours a week, then another 20 hours ordering and stocking shelves. We do all the work we do not hire any help, can't affond to. We do enjoy being back in the store. Come see us, we are always here. Just ask where the Three Mile Store is most people have been here.

We still want to be a part of our organization so I am sending you a check for our membership. Sorry we are late just for got. Someday we will sunprise you all and show up at a conference.

The Hot Iron News is looking real good.
We enjoy reading it when it comes.
Give our fond regards to all this fall, we'll be thinking of you all, wishing we were there.

Sincerely,
Pa & Ma Blacksmiths
Dave & Babe Brandon
803 Three Mile Creek Rd,
Stevensville, Mt. 59870

Phone- 777-3365

Brandons back in Three Mile Store

The familiar smiling faces of Babe and Dave Brandon can be seen once again behind the counter and stocking the shelves of the Three Mile Store. The Brandons recently repurchased the store, which they owned in the late 70s and early 80s.

The Brandons are also active members of the Three Mile Volunteer Fire Department.

ABANA Artist-Blacksmiths' Association of North America

P.O. Box 1181, Nashville, Indiana 47448
Executive Secretary, Janelle Gilbert

Office Hours: 7:30-11:30am & 1:30-4:30pm
Phone: (812) 988-6919

PRESIDENT'S MESSAGE
July 1989

Dear Friends,

We have a couple of new and exciting things happening in ABANA that I want to tell you about and the first one deals with the library. Joe Pehoski, Director of the ABANA Library, indicates that the rent on slides and videos have been reduced as much as 40% and that new material is being introduced in the next issue of the Anvil's Ring. Also, the "First International Festival of Iron, August 27 - September 2, 1989" promotion video tape is now available through the ABANA Library at no cost other than postage ($2.00). This is a tape that must be returned. The tape is very entertaining, professionally produced, five minutes long, and cannot be watched just once! This tape features American smiths and is a real hooker. Unfortunately, the tape will not be available after September 1st. If you wish to view this tape, please contact our ABANA Office very soon.

ABANA now has full sized, professionally drawn blueprints of a totally atmospheric propane forge. This forge is a regenerative heating type of unit that preheats itself to 1,0000 degrees and will jump from room temperature to 2,300 degrees F in six minutes. It is not electric in any way and is a totally reducing fire atmosphere. It runs for eight hours on five gallons of propane and weighs approximately 30 lbs. The plans are for an entirely portable unit. The approximated cost to build the forge is in the neighborhood of $175 and all the parts are easily accessible in all locations. It comes complete with full scale drawings and accompanying information sheet to explain the process and assembly. The forge plans were a gift to ABANA from the Sandia Laboratories Rocketry Testing Unit in Albuqurque, New Mexico and built under the guidance and supervision of Rob Gunter, blacksmith at Sandia Laboratories. The forge was under heavy use at Sandia for over a year and has been shown at many conferences in the U.S. in the last six months. All the blacksmiths who have used this forge or have seen it in operation have felt that it is indeed the cadillac of the propane forges. Nothing has been left to chance and no technology has been spared in the completion of this project. Francis Whitaker recently used the forge at the Western States Conference in Carbondale, Colorado and thought that it was by far the finest propane forge he had ever worked on and the most practical and inexpensive of its type to build. If you would like a set of these plans, you may obtain them through the ABANA Office at a cost of $15 for ABANA members or $20 for non-ABANA members plus $2.00 postage. It is hoped that any of you who are interested in changing to propane or are at this time using a propane forge will see the advantage of an economically produced unit.

Thank you to all editors for printing the ABANA monthly update and thanks to each of you members for continued support of ABANA and blacksmithing throughout America.

Sincerely,

Dorothy Stiegler

DS/jg

ABANA Artist-Blacksmiths' Association of North America

P.O. Box 1181, Nashville, Indiana 47448
Executive Secretary, Janelle Gilbert

Office Hours: 7:30-11:30am & 1:30-4:30pm
Phone: (812) 988-6919

PRESIDENT'S MESSAGE
August 1989

Dear Friends,

Within the next few weeks you will receive your ABANA ballot to vote on the five positions open on the ABANA Board of Directors and to clarify some of the wording of the ABANA by-laws. We will be mailing these ballots by 08/07/89 from Nashville, IN in 3rd class mail. Since they will come from a central location, members on both coasts will have an equal amount of time to review the ballots and return them by 09/15/89.

As ABANA members, you have a great responsibility to select board members who will assist ABANA in our goal to move ahead into the future as a working team. We hope that each of you will realize the power of a single vote. Returning your ballot with your vote is a privilege and an honor that I hope you will exercise.

For those of you who have been waiting on hold for the new gas forge plans, bare with us for a short time as we get these blueprints printed and the pamphlets mailed off to those of you who have made the request.

I received a letter from Pier Luigi della Bordella, Director of the eighth biennial national Dell'arte Fabbrile to be held August 28th to September 3rd 1989 in Tuscany, Italy. This is one of the most important festivals of metal to be held in Europe and it is open this year for the first time to masters outside of Italy. It will be comprised of an eight hour hands-on forging competition by masters of the world and the theme this year is "Medioeval Combat Arms in Use at Campaldino's Time". The forging exhibition will be in a place properly supplied with tools in the open air and in the presence of the public. All masters will have two working periods lasting four hours each and within this time frame the work will have to be finished and consigned to the delegate of the judges. The participants will be allowed to use their own tools in addition to the ones supplied. The models to be executed will be put at the master's disposal, drawn on paper in life size. Preliminary sketches will be drawn by Tuscan Art students and will be extracted from historical finds, kept in a Florintine museum - Stibbert & Bargello. An award ceremony will be held and the winners of the prize will be designated by jury. To all the foreign participants, the contribution of expenses will be granted. For further information, write or phone the secretary of the organizing committee. "International Prize of Smithery" c/o Town Hall Stia - inc. Mrs. Patrizia Batisti - 52017 STIA - (Arezzo) Italy Tel: 0575/58672 or 58673.

Due to the change in printers for the Anvil's Ring and awaiting approval on the location change for the 2nd class mailing permit, the spring issue will be mailed several weeks later than originally planned. It is our intention that you will receive this issue sometime during August. Thank you for standing by during this transitional period.

Dorothy Stiegler

Dorothy Stiegler
ABANA President

DES/jrg

ABANA Artist-Blacksmiths' Association of North America

P.O. Box 1181, Nashville, Indiana 47448
Executive Secretary, Janelle Gilbert

Office Hours: 7:30-11:30am & 1:30-4:30pm
Phone: (812) 988-6919

PRESIDENT'S MESSAGE
September 1989

Dear Friends,

ABANA is offering a fund-raising project for the chapters who wish to take advantage of it. There is a limited number of baseball caps at $2.00 ea. and engineer caps at $4.00 ea. in lots of 12 (any combination). Both caps have the 1988 ABANA conference logo on a sewn patch. These patches could be replaced with your local chapter logo if desired. Please take advantage of this money making project while the supply lasts. Send an additional $2.00 for shipping for each order of twelve.

We are a little behind in our printing and shipping of the forge plans. Those of you who have mailed in your request should be receiving your blueprints within the next 7 - 10 days. Anyone putting in a new order must be sure to add $2 for shipping in addition to the price of $15 for ABANA members or $20 for non-members. It was found that we could reduce the size of the blueprint itself and bind it in a booklet with instructions for the same price so it can be taken to the shop layout table as a complete text. It was felt, as we got into the printing, that this would preserve both the plans and text in its entirety, allowing ease of filing and safe keeping in your blacksmith library.

As I look ahead to the British-Artist Blacksmiths Association (BABA) Conference at Cardiff, Wales in two weeks, I find that I cannot keep from reflecting upon my roots in blacksmithing. From the first time that I picked up a hammer, ABANA was there. ABANA was there for me when there wasn't anything else. In ABANA I found a link with honesty, value, worth, sharing and growing together in both my business and in my personal life. Through the years I have been intimately involved in its growth; watched the good times and the bad times; and like a marriage I stuck with it and believed in it. I did that because of all of you, the members; my friends, my inspiration, my drive; and because I found that it made me happy, peaceful, satisfied, and complete. From the beginning you have accepted and respected me and I have done the same with you. This common bond that we share in the iron is one of my most precious possessions. To be allowed the privilege of representing you on the board all of these years and of being intrusted with your confidence now is truly profound.

As I ready for Cardiff, I see my trip as a great responsibility. I proudly and humbly have been allowed the privilege of representing not only myself, but all of you as members; men, women, beginners, professionals, hobbyists, all of us as a team --together as your President, the spokesman of the membership of the greatest blacksmithing organization in the world.

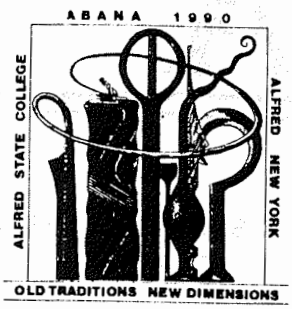
I hope each and every one of you will some day enjoy a similar circumstance. It is my personal goal to help ABANA reach a point in the future where every member will have an equal opportunity for such an experience.

Sincerely,

Dorothy Stiegler

Dorothy Stiegler
ABANA President

DES/jrg



NORTHWEST BLACKSMITHS ASSO
KAREN WAGNER
711 TAYLOR STREET
PORT TOWNSEND WA 97229

DEAR KAREN WAGNER;

THE **ARTIST BLACKSMITH ASSOCIATION OF NORTH AMERICA** WILL BE HOLDING IT'S BIENNIAL INTERNATIONAL CONFERENCE ON BLACKSMITHING **WEDNESDAY JUNE 27, 1990 TO SUNDAY JULY 1, 1990.** THE HOST SITE IS THE CAMPUS OF ALFRED STATE COLLEGE AT **ALFRED, NEW YORK**

THE CONFERENCE COMMITTEE HAS REQUESTED THAT THOSE PUBLICATIONS MOST HELPFUL TO OUR MEMBERS AND THE METALWORKING PUBLIC BE ASKED TO HELP US.

WE EXPECT A STELLAR LINEUP OF DEMONSTRATORS/LECTURERS. THE LIST OF INVITED GUEST DEMONSTRATORS THUS FAR INCLUDES:

TOM JOYCE
MANFRED BREDOHL
SERGE MARECHAL
LEONARD URSO
BOB BECKER
PHIL BALDWIN
GLEN GILMORE
DAVID LATANE
ALEX KLAHM
PETER ROSS AND THE WILLIAMSBURG SMITHS
RANDY MCDANIEL
DAVID NORRIE
CLAIRE YELLEN
ROBERT GRIFFITH
PETE CASSIDY
JACK ANDREWS
GLEN ZWEYGARDT
RAY NAGER
SIMONE BENETTON
JOEL SWARTZ
MATHIAS PETERS
BILL SENSENEY
ED GROVE
MITCH FITZGIBBON
DAN MARAGNI
CLAY SPENCER
CATHY MORGAN
ALBERT PALEY
LMC CORP. FRENCH REPOUSSE RESTORERS OF THE STATUE OF LIBERTY

FRANCIS WHITTAKER AND JUD NELSON HAVE BEEN INVITED AS HONORED GUESTS AND WILL BE DEMONSTRATING OR TEACHING AT A SPECIAL FORGING STATION.

SOME OF THE ABOVE WILL BE PRESENTING SLIDE/LECTURES OR TAKING PART SYMPOSIA REGARDING VARIOUS ASPECTS OF BLACKSMITHING. FOR INSTANCE, JACK ANDREWS WILL BE PRESENTING INFORMATION ON COMPUTER AIDED DESIGN AS AN AID TO BLACKSMITHS. CLAIRE YELLEN WILL BE PRESENTING AN HISTORICAL RETROSPECTIVE OF HER FATHERS WORK AS WELL AS THE PRESENT AND FUTURE WORK OF THE YELLEN IRONWORKS.

PAUL LUNDQUIST WILL BE HEADING A SEMINAR/SYMPOSIUM/CASE STUDIES PROGRAM DEALING WITH BUSINESS PRACTICES AS THEY RELATE TO BLACKSMITHING. HOPEFULLY THIS WILL COVER EVERYTHING YOU FORGOT TO ASK WHEN YOU STARTED OR ANSWER THAT NAGGING QUESTION "HOW DO I GO ABOUT ENLARGING MY BUSINESS?".

THE SPECIAL PROGRAMS FOR THE REST OF THE FAMILY LOOKS VERY EXCITING. ALL KINDS OF CRAFTS, SWIMMING, AND OTHER ACTIVITY PROGRAMS. MORE LATER

MAKE YOUR PLANS NOW SO YOU AND YOUR FAMILY WILL NOT MISS THIS EXTRAVAGANZA. WITH ANY LUCK WE MAY EVEN HAVE A COUPLE OF VERY INTERESTING SUPRISES.

YOU WILL BE RECEIVING A PACKAGE OF MATERIAL SOMETIME IN SEPTEMBER TO SHARE WITH YOUR MEMBERS. AT THE TIME WE SEND OUT THE REGISTRATION PACKAGES IN JANUARY, WE WOULD LIKE TO BE ABLE TO SEND A DIRECT MAILING TO EACH OF YOUR MEMBERS. FOR THAT, WE WOULD NEED A MAILING LIST OF YOUR CHAPTER'S MEMBERS, OR EVEN BETTER, MAILING LABELS WITH YOUR MEMBER'S ADDRESSES ON THEM. IF YOU ARE ABLE TO PROVIDE US WITH EITHER OF THE ABOVE, IT WOULD BE GREATLY APPRECIATED.

WE ARE LOOKING FORWARD TO A SUCCESSFUL CONFERENCE WITH MORE PARTICIPANTS THAN EVER. YOUR ASSISTANCE WOULD HELP MAKE THESE GOALS POSSIBLE. THANK YOU FOR YOUR HELP.

WE WOULD APPRECIATE IT IF YOU WOULD DISTRIBUTE THIS INFORMATION TO YOUR READERSHIP/MEMBERS. IF YOU ARE NOT THE CORRECT PERSON TO HAVE RECEIVED THIS INFORMATIONAL RELEASE, PLEASE FORWARD IT TO THE APPROPRIATE PERSON. AGAIN WE THANK YOU FOR YOUR ASSISTANCE.

BEST REGARDS AND HOPE TO SEE YOU IN ALFRED IN 1990,

MICHAEL F. PRESUTTI
48 SOUTH STREET
BELMONT,NEW YORK 14813

Plymouth College of Art and Design
Sutton Annexe, Regent Street
Plymouth PL4 8BQ
Telephone (0752) 221312 and 264774
extension 5214

Devon Education Committee

Your ref:
Our ref: GH/PM

Date: May 18th 1989

PRESS RELEASE

Please publish this in your next journal or newsletter, prior to the "First International Festival of Ironwork" in Cardiff, Wales, August 26th to September 3rd.

"Considered by many to be amongst the most magnificent Forgework Studios in the Northern Hemisphere, the Architectural Metalwork Department of Plymouth College of Art and Design will be pleased to welcome any visitors from home or overseas who wish to tour Devon and Cornwall following the FIFI conference.

The College is now entering Phase Two of its successful Higher National Diploma in Architectural Metalwork, and is planning to double its workshop space and facilities by the next intake in September.

Other local attractions include the glorious Dartmoor National Park, Mayflower Steps where in 1620 the Pilgrim Fathers set sail for a better life in the Americas, and the plaque listing thos who sailed; Plymouth Sound, home port for Sir Francis Drake's Armada defeating fleet; Plymouth Hoe where he played his famous game of bowls; and hundreds of miles of beautiful West Country coastline, with some of the best surfing beaches in the world.

Enquiries are also welcome from overseas students.

For more information please contact Keith Radcliffe, Head of Department, Sutton Annexe, Plymouth College of Art and Design, Regent Street, Plymouth, PL4 8BQ . Telephone (0752) 221312 extension 5214. "

Graham Hodgetts
Lecturer, Architectural Metalwork

Keith Radcliffe
Head of Department
Department of Foundation and Design Studies

Michael W. Brindley FBID CGLI(FTC)
Principal

National Ornamental Metal Museum

November 5 - December 31, 1989

"JEWELRY: MEANS AND MEANING"

An international exhibit of contemporary jewelry including approximately 100 works by artists from Japan, Australia, the United States and Europe. The exhibit has been organized for tour by the art department at the University of Tennessee, Knoxville.

The Museum will be closed to the public on Thursday, November 23 for Thanksgiving, December 24, 25 and 26 for Christmas, and on New Year's Eve and New Year's Day. The Museum will remain closed through January 6 for exhibit change.

January 7 - February 25, 1990

First, Annual Fortunoff Silver Competition Exhibition:

"SILVER: NEW FORMS AND EXPRESSIONS"

Fortunoff, the world's largest sterling silver retailer, has initiated an annual design competition open to all metal artists and designers in the United States. Winning entries received funds to cover the cost of silver for the original holloware and flatware designs and were eligible for cash awards. The exhibit also includes an invitational section featuring the work of metal artists recognized as forerunners in the modern holloware movement since World War II. Objects include teapots, pitchers, coffee and expresso services, candlestands, shotglasses and flatware.

The Museum will be closed to the public for exhibit change February 26 - Mar. 3.

March 4 - April 29, 1990

"THE COLLECTION OF ALBERT BLEVINS"
(First Floor Galleries)

In 1988, the Museum became one of four institutions to receive selections from the outstanding knife collection of the late Albert Blevins. The entire collection will be assembled here for its first public viewing in this exhibit. Included will be exceptional examples of American custom knives by such makers as Ron Lake, Robert W. Loveless, Buster Warenski, and Jess Horn.

"NEW MEXICO BLACKSMITHING EXHIBITION"
(Second Floor Gallery)

A group invitational exhibition curated by Western New Mexico State University typifies the ironworking style of this distinctly regional craft.

374 West California Avenue
Memphis, Tennessee 38106

(901) 774-6380
telefax: (901) 774-6382

The John C. Campbell Folk School Announces

Blacksmithing Calendar of Events for 1990

MARCH 2-4 - Clay Spencer

MARCH 4-10 - Joe Miller

MARCH 11-17 - Elmer Roush

MARCH 18-24 - Charlie Fuller

MARCH 25-30** - Clay Spencer

APRIL 1-14 ADVANCED IRONWORK
Francis Whitaker

APRIL 15-20 - Charles Orlando

APRIL 27 - 29 - Jim Batson

APRIL 29 - MAY 5 - Jim Batson

MAY 6-12 - Clay Spencer

MAY 13-18 ** - Ira DeKovan

JUNE 16-22 *** - Jerry Darnell

JULY 15-21 - Dan Easley

JULY 22-27 ** - Dan Easley

JULY 27-29 - Clay Spencer *

JULY 29 - AUGUST 4 - Claiborne Smith

AUGUST 12-17 ** - Joe Miller

AUGUST 17 - 19 - Charles Orlando

AUGUST 19-25 - Charles Orlando

AUGUST 25-30 ** - Charlie Fuller

SEPTEMBER 3-9 - Elmer Roush

SEPTEMBER 9-15 - Bob Becker

OCTOBER 14-19 ** - Jim Batson

OCTOBER 19-21 - Jim Batson

OCT 21 - Nov 3 ADVANCED IRONWORK
- Nol Putnam

NOVEMBER 1 - BLACKSMITH AUCTION

NOVEMBER 11 - 17 - Elmer Roush

NOVEMBER 25 - DECEMBER 1
- Michael Saari

DECEMBER 2-8 - Elmer Roush

****Indicates Short Week, registration on Sunday, students depart after lunch on Friday**
*****Indicates Course begins on Saturday and ends on Friday after lunch.**

Course Descriptions

Jim Batson - (4/27-29) The students will make the necessary tools and learn how to forge Wizards, Turks, a Bishop, and a bald headed Chinaman.

(4/29-5/5) - The students will weld up a multi-layer billet of high and low carbon steels and forge this billet into a knife blade of their design. This blade will then be hand finished, heat treated and etched. The knife will then be shafted with a handle supplied by the student. Various pattern development and metal combinations will be explored.

(10/14-19) Each student will be assisted in the forging of his or her selected blacksmith project or projects.

(10/19-21) - This course is for the craftperson or the blacksmith who wishes to make his or her own tools . Each student will be assisted in the forging of his or her selected tools. You will be exposed to Blacksmith metallurgy .

Bob Becker (9/9-15) - Perfecting basic skills, making tools for joinery techniques, flowers, leaves, and animal faces. To stimulate personal interest and to complete several small projects incorporating the above designs.

Jerry Darnell (6/16-22) - Intermediate to advanced blacksmith students will study restoration English hardware, and make iron door hinges, latches, knockers, boot scrapers, kitchen utensils, etc.

(over)

1990 Course Descriptions (cont.)

Ira DeKovan (5/13-18) - This course is open to all skill levels and will emphasize innovative ways of working with iron. The class will also explore the uses of non-ferrous metals, such as: brass, bronze, copper, and aluminum.

Don Easley - (7/15-21 - 7/22-27) - Beginning to intermediate students will learn the basic processes of blacksmithing, covering fire management, upsetting, splitting, forge welding, twisting, hammer control and how to use the tools of the blacksmith.

Charlie Fuller (3/18-24; 8/25-30) - Beginning to intermediate students will focus on the management of the forge fire, splitting, upsetting, forge welding, twisting, hammer control and how to use the various tools associated with blacksmithing.

Joe Miller (3/4-10; 8/12-18) - Beginning class in basic blacksmithing techniques such as upsetting and drawing out and forge welding. Small objects such as hooks, pokers, hangers, etc. will be accomplished.

Charles Orlando (4/15-20; 8/19-25) - Beginners to intermediate students will learn the fundamentals of forging and fabrication of functional and ornamental ironwork through practice and incorporating necessary techniques into a mutually designed project.

Nol Putnam - (10/21-11/3) - Advanced Ironwork course of 2 weeks will cover design, including computers, layout, construction, feedback, tricks, special demonstrations, business necessities and such other items that will make these two weeks productive, great fun, extraordinarily useful and very human. Students are expected to submit a to-scale drawing and materials list three weeks prior to the class.

Elmer Roush (9/3-9; 11/11-17; 12/2-8) - Beginning to intermediate students will study basic blacksmithing techniques to learn the art of ornamental ironwork. Hooks, pokers, hangers, etc. can be made using the basic hand-forging skills.

Michael Saari (11/25-12/1) - Intermediate to advanced students will study construction of architectural hardware ranging from nails to large hinges and latches. Layout, assembly, and benchwork will be addressed.

Claiborne Smith - (7/29-8/4) - Beginning to intermediate students will cover the craft of blacksmithing from upsetting and drawing out to forge welding with emphasis on hand operations. Work will highlight objects and methods from the period of the 1800's.

Clay Spencer (3/2-4; 3/25-30; 5/6-12; 7/27-29*) - Beginning to intermediate class will learn to make useful and decorative hand-forged items for the home such as coat racks, pot racks, fireplace equipment, etc.
*This weekend course will cover the important points in designing a treadle hammer, how to make your own, the many operations a treadle hammer can be used for and the tools which are used with it.

Francis Whitaker (4/1-14) - This 2-week Advanced Ironwork course will cover all aspects of architectural ironwork: design, layout, selection of material sizes, forging, fitting, assembling, preparation for installation, and various finishes. Students are to submit to-scale drawings and materials list for inclusion in this class.

For further information, please write or call:

The John C. Campbell Folk School

Rt. 1, Box 14A
Brasstown, NC 28902

Phone - 800-562-2440 or (704) 837-2775

Book Review...

WROUGHT IRON IN ARCHITECTURE: An Illustrated Survey. by Gerald K. Geerlings. (New York: Charles Scribner's Sons, 1929; reprint ed., New York: Dover Publications, Inc., 1983. Pp. xi, 202. $9.95 paperback.)

Overall a superb survey of architectural ironwork from medieval Europe through early twentieth century America. The author has done an admirable job in organizing a great deal of information and illustrations into an enjoyable and interesting publication.

The book begins with an introductory section which focusses on such topics as the properties of wrought iron, tools and terms, design motifs, finishes, etc. The author tends to lean toward the poetic in this section with statements like: "For all its good nature and accomodating spirit, wrought iron asserts a seeming puritanical conscience by looking and acting only what it is. Nor can anything steal its copyrighted traits... " For those of us who have experienced the pleasure of forging good wrought iron-- the author speaks volumes. One must remember, however, that Geerlings wrote this book during one of the great peaks in American decorative metalsmithing. In keeping with this, there are numerous illustrations detailing the work of Samuel Yellin, the Iron-Craftsmen, Atlas Ornamental Iron Works, and others. You will not only find praise, but also a degree of criticism for things like poor design, and less than acceptable craftsmanship. This I found particularly refreshing in that so many books which deal with blacksmithing and metalwork (or hand crafts in general) focus only on the best design or the finest execution of technique when in reality the world is a balance of the superb through the mediocre, and sometimes the best teacher is constructive criticism.

This book is a treasure trove of illustrations. It is the type of publication which you will never get tired of flipping through. In fact, I recommend that you do not read it cover to cover, but open it periodically and discover something new each time. The author transports the reader from a full page photo of the Gate to the Cloisters of the Salesian Nunnery in Vienna (1720-30) to a detail shot of a residential balcony in Savannah, Georgia; a selection of wrought iron hardware from the Wurzburg Residence in Bronxville, New York to the incredibly ornate well-head at Bruck an der Mur, Austria (1626). While the breadth and depth of the photographs and architectural drawings are exceptional, unfortunately, the quality of the graphics is not. Even so, they are legible if not crystal clear-- such is the legacy of a reprint.

In all, I recommend that this volume be included on your book shelf. It is sure to enlighten and possibly give birth to a new idea or two.

- Dan Perry

From The Pennsylvania Striker, Pennsylvania Artist-Blacksmith Association, Spring 1989.

Classified Ads

FOR SALE:

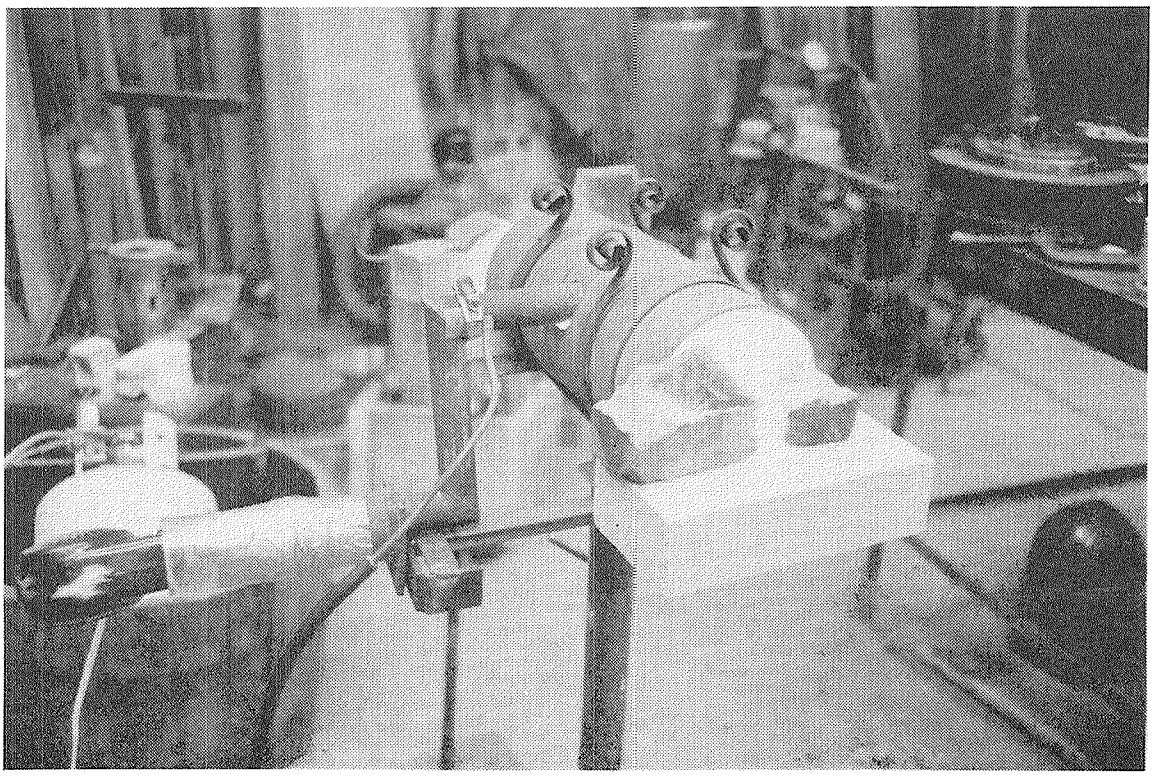
Post vise, $50. Write Merlin Troska at PO Box 20113, Portland, OR 97220

WANTED:

3rd "man" on the rope to climb Mt. Rainier just before the NWBA Fall Gathering. Contact Jim Westfall and Shirley Pytlak at 53 Warwick Rd., Tonasket, WA 98855 or call (509) 486-2456.

FOR SALE:

Damascus and Mokume Billets, Forging Tools for Metalsmiths. For a catalogue, write: Fiorini Metalsmiths, 1590 Highway 16, LaCrescent, MN 55947.



Northwest style propane forge.
Photo by Al Karg.

Hot Iron News

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