

HOT IRON NEWS



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Cover: Phil Baldwin's Mokume Gane Door Handles on Snohomish Public Library



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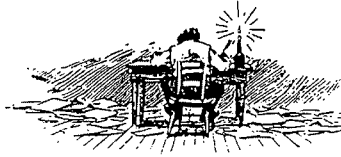


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Editor's Notes



First off, Congratulations to Don Kemper for his election to President of ABANA at the recent Board Meeting in Memphis. Don can take a huge amount of credit for his years of service to NWBA as President. Don takes over a 5000- member organization which has never been stronger or more capable of providing great member services. In the past few years, ABANA has become a truly international organization. It has allowed blacksmiths in the United States to forge relationships with other smiths in Europe and Asia. Don will be able to guide ABANA as it expands it's scope and benefits to members, and potential members, in the Pacific Northwest and Western Canada. This will be one of the positive spin-offs from the ABANA Conference in Seattle in 2006!

Plans for the 2006 Conference are underway! The University of Washington seems very interested in hosting the event. Terry Carson and I will be joining Don Kemper, Alex Montgomery and Phi Baldwin in a campus tour to view potential facilities. Once we nail down a site we can start working on the organization and logistics. Fortunately, we have an excellent organizational template which ABANA has developed and is using at Richmond. Also, we have a solid core of expertise which will enable us to proceed without having to reinvent the wheel. For example, Eric Lander of California supervised the electrical system at LaCrosse. This is an extremely complicated task since it involves providing all of the power requirements to the site, including multiple power-hammers. Eric will also supervise the electrical requirements at Richmond. After Richmond, Eric will have two years to fine-tune the wiring requirements for Seattle. ABANA has acquired all of the wiring and other equipment necessary to wire a site. This is but one example. Elizabeth Brim has done an outstanding job on galleries at past conferences and will be able to apply that experience in Seattle.

As we proceed along the organizational time-line Terry and I will begin to identify committees and tasks that our membership can volunteer for. I have spoken with the surrounding affiliates i.e. Northern Rockies, Kootenay, Vancouver Island, and have received an enthusiastic response. Terry and I are both gratified at the expressions of support and offers of assistance from many of our members. The bottom line, as I see it: This is going to be one helluva Conference!

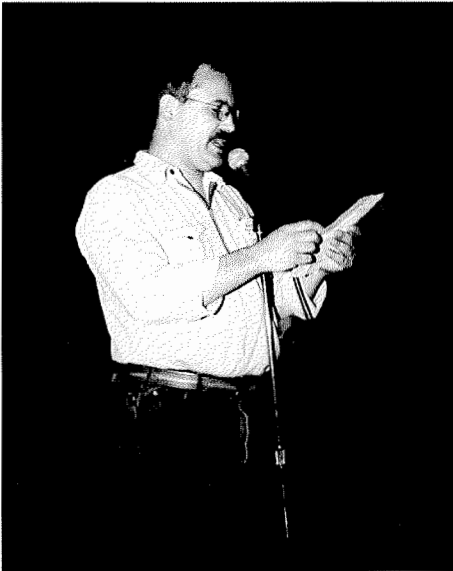
I'd like to extend Thanks to Alex and Phil for their input, advice and efforts at the University of Washington.

Meanwhile, Richmond 2004 is looming! Dave Koenig and the ABANA Board have put together a conference program that will be great! If NWBA can pick up ten new ABANA members, the club can get a free entry pass to the conference. About half of NWBA's members belong to ABANA. We need to make a concerted effort to increase this percentage so that everyone is acquainted with and receives the benefits of ABANA membership. The article on Ireland in this issue was partially funded by an ABANA Grant to Louie Raffloer. If you're not a member yet, take a little time to sign up.



AND NOW . . .

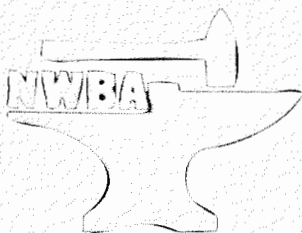
A FEW WORDS FROM THE PRESIDENT!~



As we are wrapping up 2003 and looking ahead to 2004 and beyond, the NWBA has a lot of irons in the fire. As I write this: the annual dues renewal is in progress and the board of directors' election ballots will be counted in a few days. At the up-coming January 24th board meeting in Olympia, Washington, not only will we have four new board members; we will also be selecting some new officers. Plans for the spring 2004 25th anniversary conference (May 28th-30th) in Enumclaw, Washington are well under way. It looks to be a grand event with a long list of demonstrators and activities. I hope that all of you can attend. Plans are also coming along nicely for the fall 2004 conference at Flashing Forge in Oakland Oregon (Oct. 15th-17th)

As you have probably already read, ABANA has selected Seattle as the site for the 2006 Conference! Jerry Kagele and Terry Carson have agreed to co-chair an ABANA conference committee and have been moving forward with the early stages of planning. If you would like to help with this event **let them know**. Your support would be appreciated.

An ABANA conference in Seattle is a very good opportunity for Northwest blacksmiths to be recognized at a national level. We should all be thinking about a piece of work specifically for the 2006 ABANA Conference Gallery. I think it would be great to see the gallery full of work done by NWBA members.



Mark Mantley

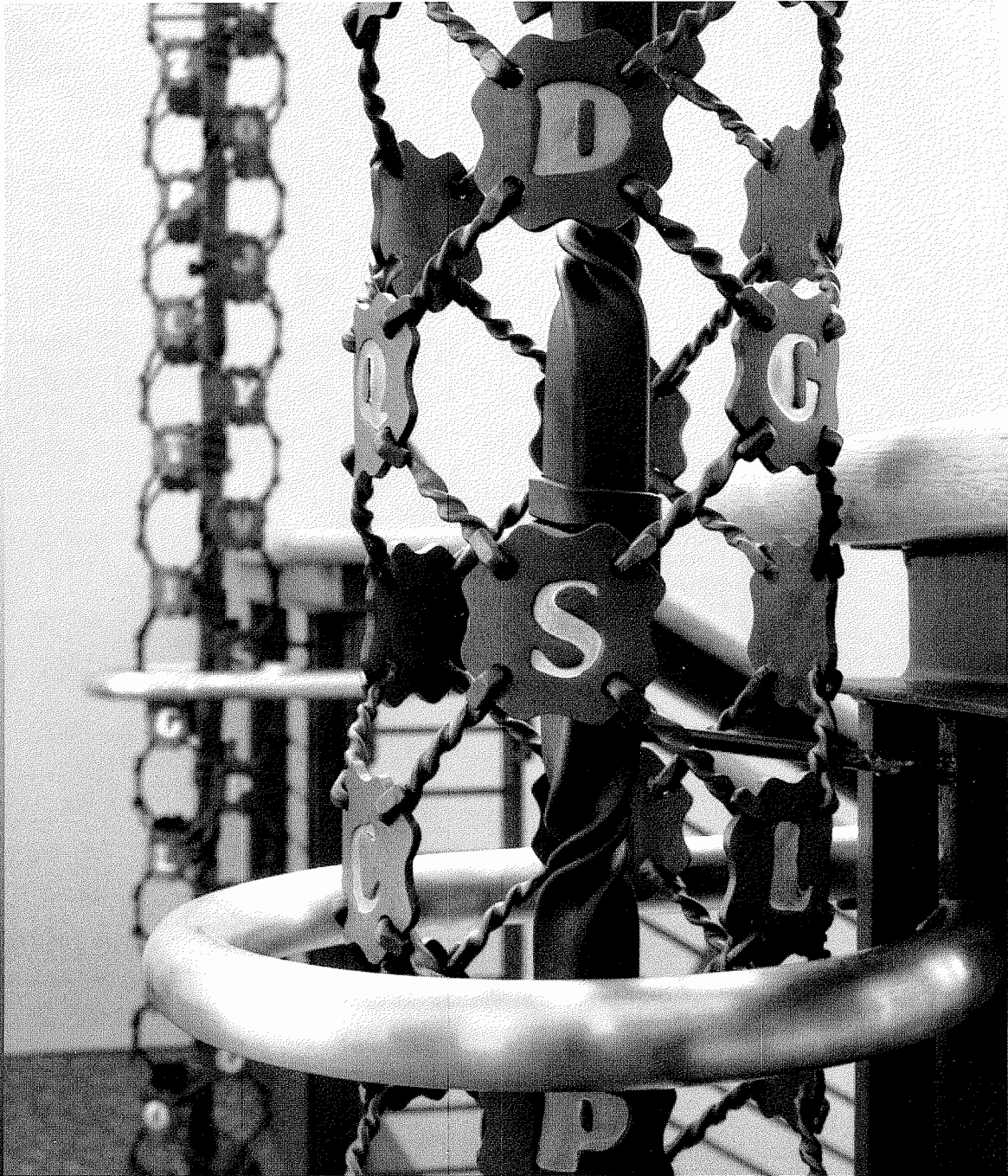


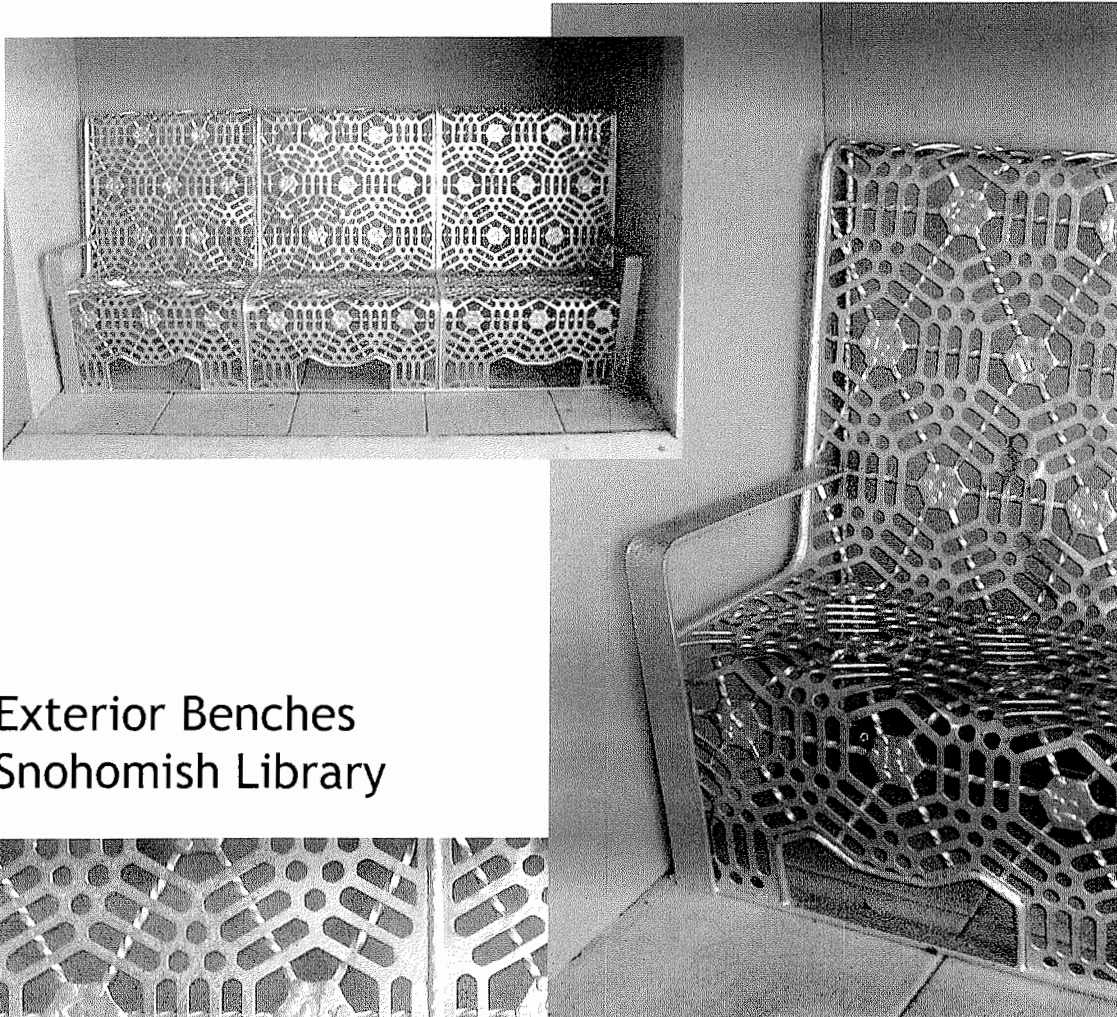
Anacortes Library



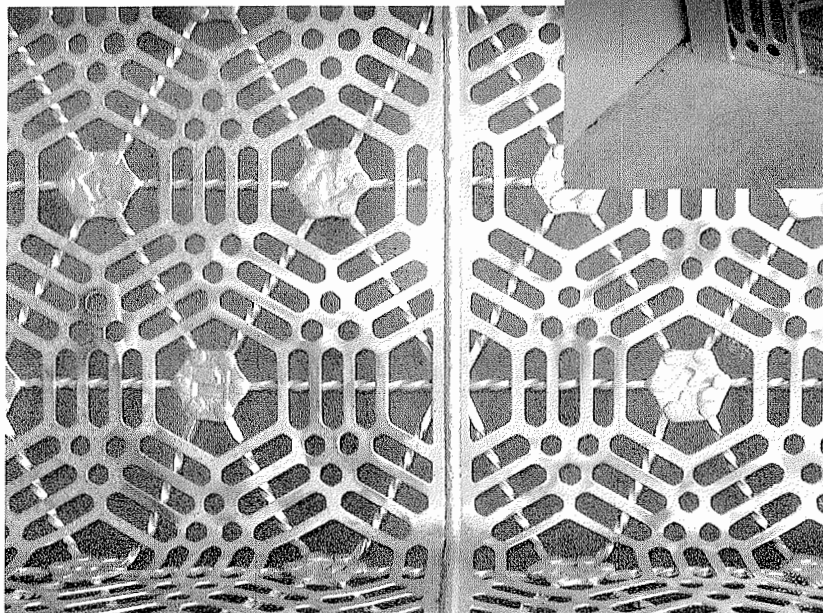
Ries Niemi
Public Art

Forest of Books Under Stars





Exterior Benches Snohomish Library

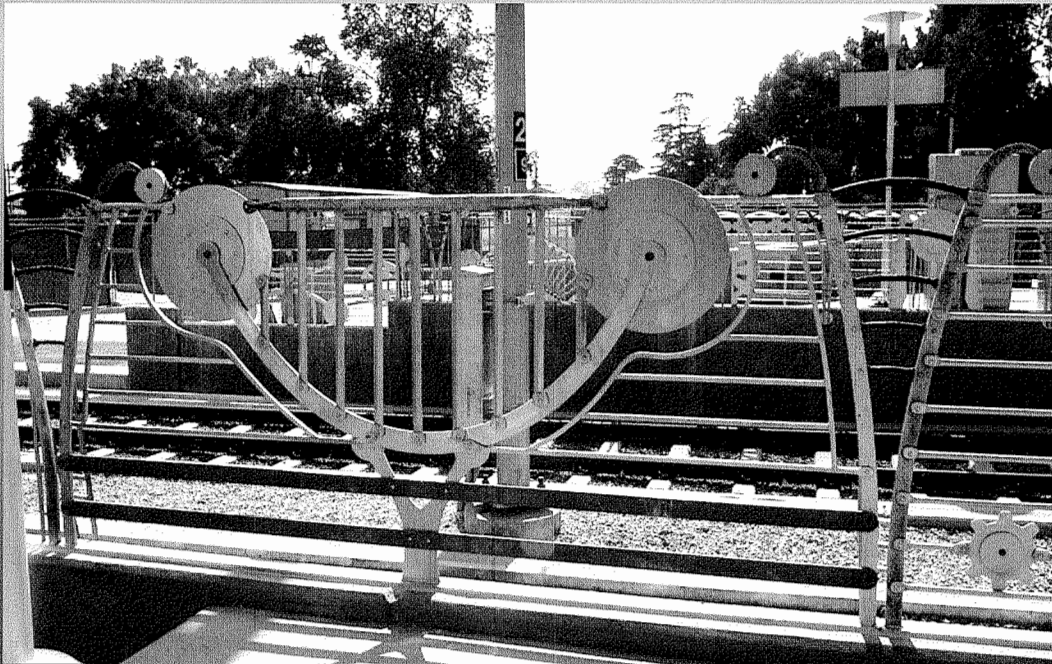


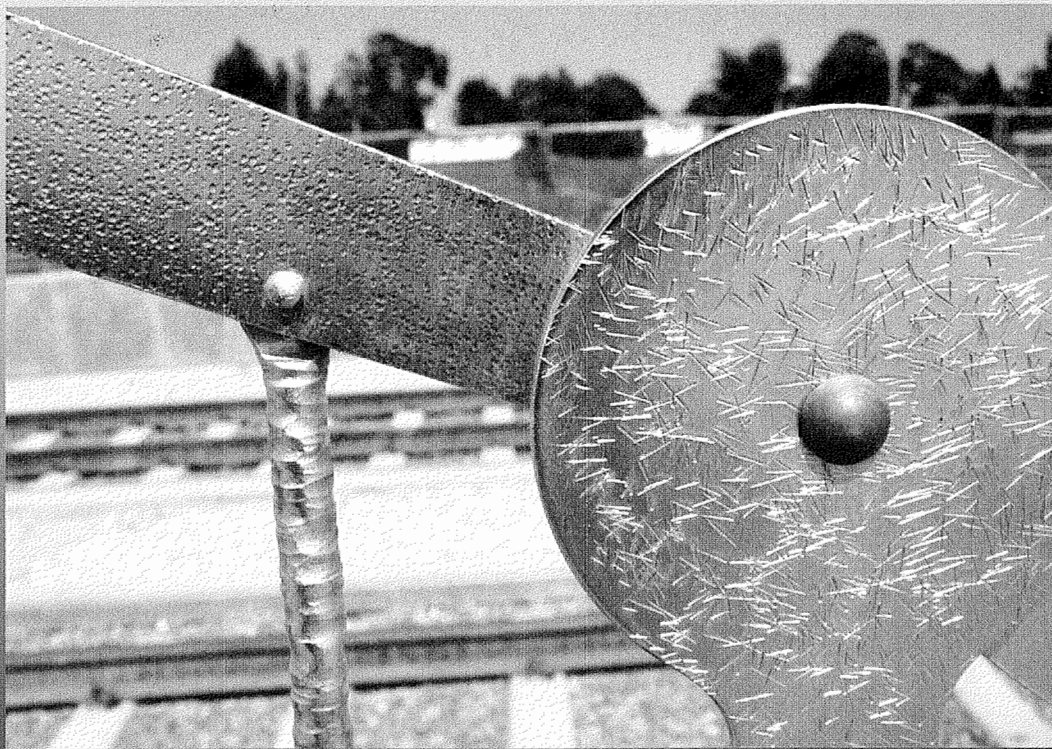
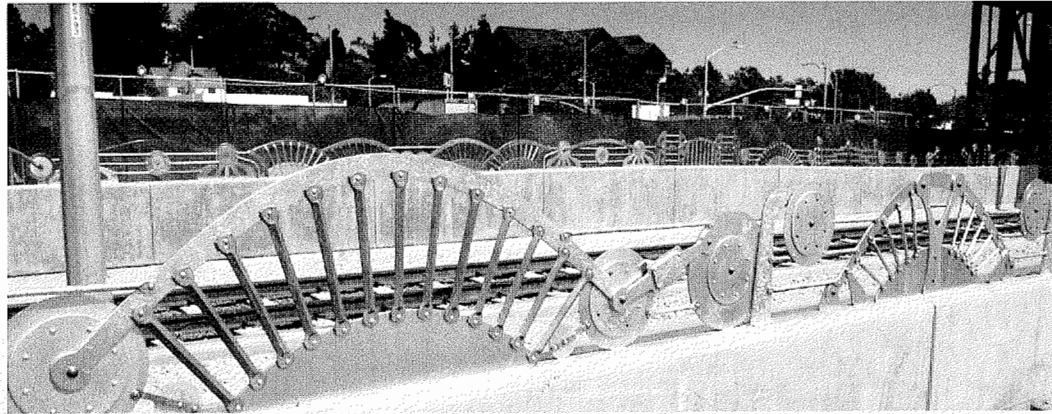
Benches are nine feet long, four feet tall. Forged round bar frame with a layer of plasma-cut 1/8" sheet, behind which is a hexagonal grid of twisted square and stamped hexagonal plates. Twist and plates are hot-riveted together. Finish is hot-dip galvanized.

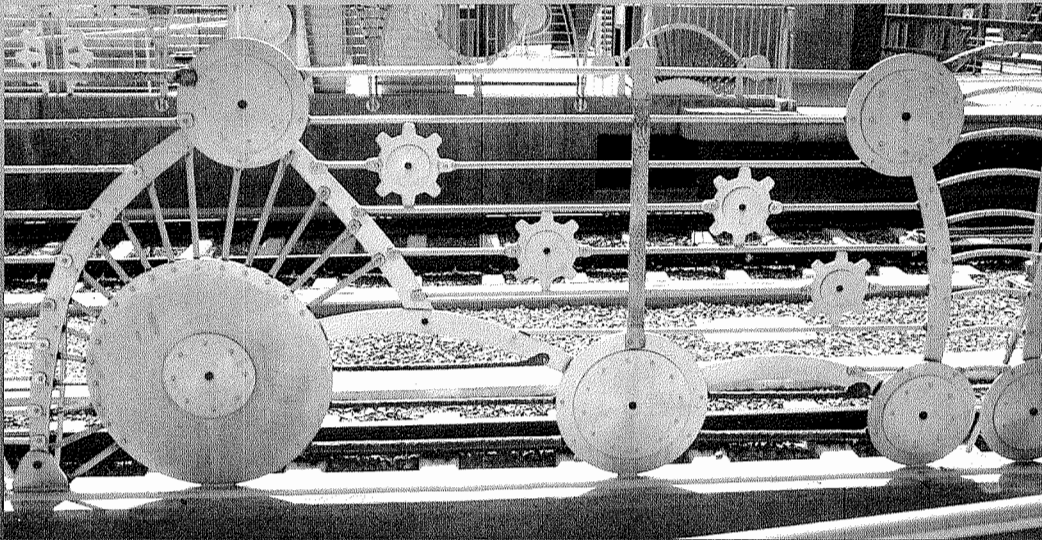
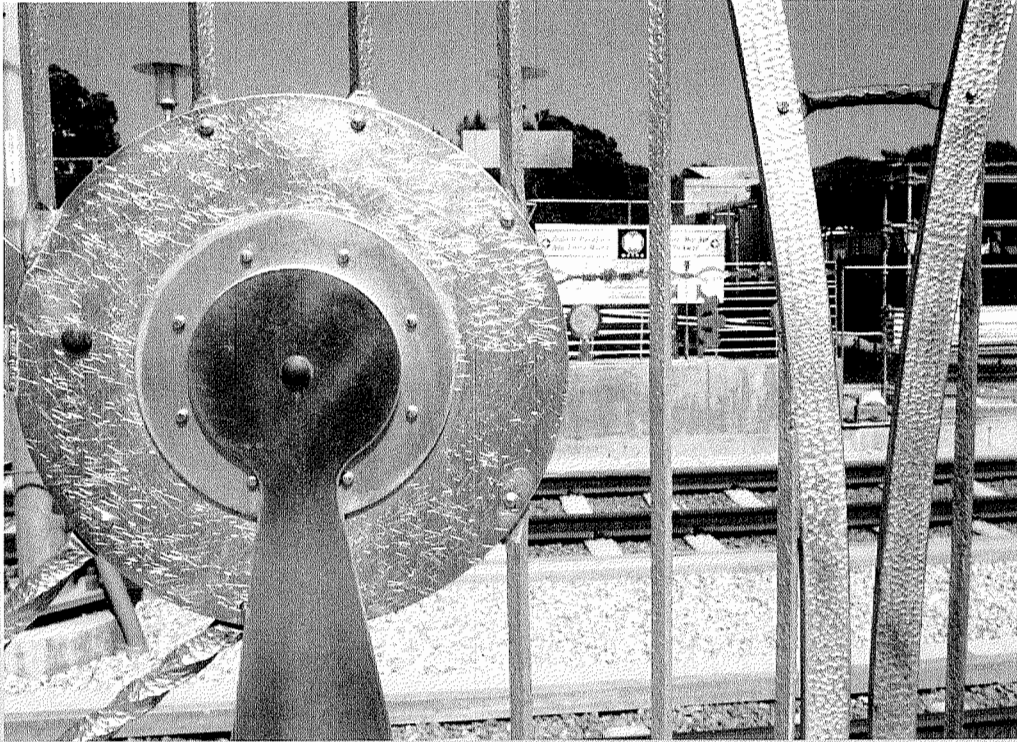


Fence at light-rail station in Pasadena, California. The fence contains both forged and fabricated components and is riveted together. Primarily made of stainless steel except for 1500 lbs. of naval and silicon bronze.

The whole project is 550' long and contains six tons of metalwork.









Project Details ~ Ries Niemi

Although I have been working with metal since the late 70's, and have had a forge and anvil in my shop for 15 years or so, it has only been in the last few years that I have gotten seriously interested in blacksmithing.

At this point in my career, I know just about enough to know how much I don't know. However, I am lucky enough to have built a track record in both public art projects and ornamental ironwork over the last 20 years, which enables me to get jobs which will pay for me to learn how to forge metal.

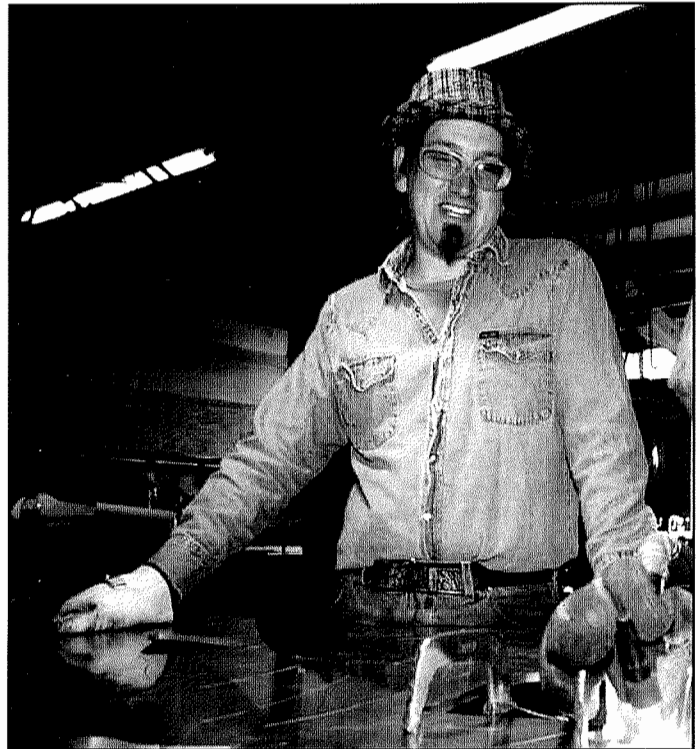
I have a three-man shop in the Skagit Valley, Washington, on the farm where I live. Being a bit of a tool freak, I am pretty tooled up, so we can mix a lot of different techniques together. We do a wide variety of work, but for the last few years I have been concentrating on large public pieces, mostly 1% For Art projects for cities around the country. These are three recent projects that all involved some forging, although none of them are exactly traditional blacksmithing.

In 2002 I was awarded a commission to design and build a piece for DelMar Station, a stop on the new Gold Line Light Rail in Pasadena Ca. My fencing separates the train tracks from the surrounding development—a \$50 million residential and retail project of seven buildings. Although the selection and process was overseen by the City of Pasadena, this was actually a private commission from the developer building the project—Urban Partners of Los Angeles.

This is a very visible high-end project right in downtown Pasadena, and they wanted something special. I designed a vocabulary of forms, based on industrial shapes, train parts, and Art Deco and craftsman-style buildings in the neighborhood. Some of these forms are waterjet-cut from 5/6" stainless steel, others were forged or fabricated in my shop.

We built 550 linear feet of fencing, ranging in height from 24" to 48". We built the piece in eight-foot modules, with a few 12 footers thrown in just to make it harder for us, but it is designed so the seams between the modules don't show, and the piece reads as one continuous design. There is somewhere around a ton and a half of naval, silicon, and architectural bronze, and maybe six tons of 304 and 316 stainless steel in this fence.

A lot of the forging is very simple—textures on round and square bar, flattened ends which are then riveted, with only a few places with more complicated hot work—the



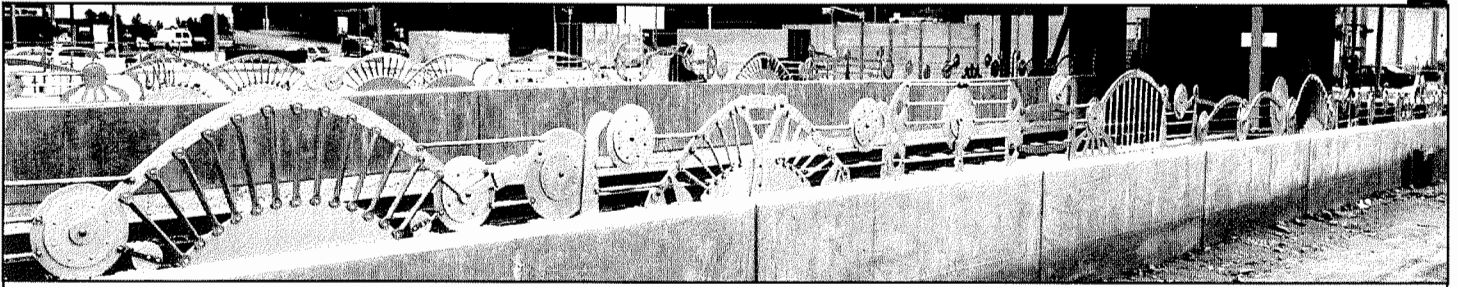
Public Artist Ries Niemi at home in the Skagit Valley

odd scroll or taper. There are about 4000 rivets in the piece, almost all stainless, which we set cold with a hydraulic press. Occasionally we came across a spot where we had to set a few rivets hot by hand.

I composed each eight-foot panel as it hit the layout table, kind of improvising as I went along. Drawing from a stack of precut parts, I would arrange and rearrange them until I liked each segment, then we would forge all the individual parts, drill and rivet, and finally Tig-weld the parts to a bottom bar of 1/2" x 2" stainless. Every panel is different, except for a couple of spots where two panels that are similar make up a symmetrical, larger design.

After all the forging and welding was done, the panels went to the electropolisher. The stainless becomes quite shiny, but the acid bath of the electropolisher actually begins the patina process on the bronze alloys.

Because the piece is so large, it is impossible to see it all at once, but there are many small details that reward up-close inspection. I made the two benches for the new Public Library in Snohomish Wa. They are a curious hybrid of fabricated and forged. I have a particular soft spot for libraries—at one point my father was the number one borrower in the entire Seattle Public Library system, and I have inherited his voracious appetite for books. This is the fourth Library I have done work for.



The architect designed these two niches in the stucco walls, on either side of the main entrance, under cover from the rain, so these benches don't have to have sides or backs that are exposed to public attention. I only had to work with the front and seating faces. Without having to worry about legs or structure, I could focus on the ribbon of the bench as it wound down the wall to the floor. First, I cut a pattern out of 1/8" sheet, with my optical trace plasma cutter. The two benches are each nine feet long, but they are in three-foot wide modules, so I only had to draw one pattern and cut it six times. Then, we built a 4" radius die for my sheetmetal brake, and bent the sheet to the finished profile.

Lately I have become a big fan of Grant Sarver's swage and texturing tools, and we built a frame out of 3/4" round bar that had been thoroughly Sarverized. We welded the sheet into the forged framework, and then began working on the back layer which shows through the plasma-cut pattern. My nine-year-old son, Torque, twisted the bar-stock for me. I have a German CNC twisting machine, and he loads the 3/8" square bar in, runs the machine with a foot pedal, and unloads it.

Unfortunately, he is too short to run the saw, so we had to cut the pieces for him, but after that he took over. Then we plasma-cut the hexagons from 1/4" plate, and hot-forged the alphabet letters into them with the power-hammer. The holes were punched cold then drifted hot, as the alphabet-punching distorted them. The hexagons were assembled with connecting twisted bars, and each one was heated with a rosebud and upset with a hand hammer.

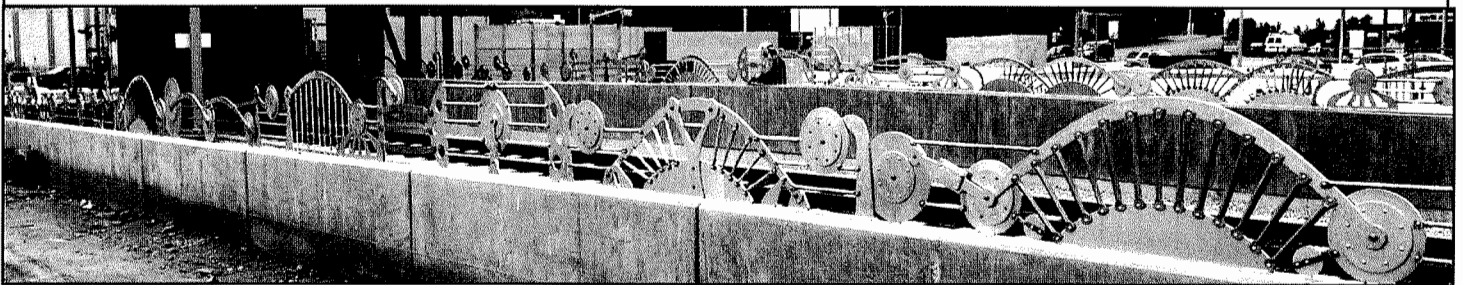
After the webwork of hexagons and twists was assembled, we welded it to the back side of the sheet. Then the whole bench was hot-dip galvanized.

Another library I worked on recently was the new Anacortes Public Library. I ended up making four giant newel posts, and a *Forest of Books* underneath the stairs. The freestanding staircase needed some kind of barrier to keep people from bumping their heads on it, so I built this fence-like thing, with three benches let into it. It has little book holders built into it, so the librarians can put books on it, and the books become the fruit of the forest, the flowers in the plants.

Again, the forging is pretty simple. Mostly just textures and twists, a few leaves thrown in. For this project we made up a whole set of alphabet stamps for use with the power hammer. I plasma cut them from 1/8" stainless sheet, then laminated them onto blocks of 1" steel, and put a handle on each one. This allowed me to stamp letters into all of the leaves, as well as the little tiles which make up the columns.

This project was built before I bought my fancy twisting machine, so we twisted all the parts hot by hand and upset every one of those twists hot by hand. I built a big jig to build the columns on from 10" o.d. steel tube. We assembled the whole column on the tube, hot-upsetting each connection, then, when the whole column was done, winched them off the tube with a come-along.

This piece was powder-coated with a pretty cool-looking metallic bronze finish—it looks kinda like a rebuilt alternator for your car—sort of glass beaded looking. Then I went back and hand-painted every one of the alphabet letters, using model airplane paint in gold, copper and brass colors. I don't like to use powder-coating for exterior pieces, as I don't think it is durable enough long term, but inside I like it.





What is Mokume-Gane? by Phil Baldwin

Mokume-gane (or mokume) means in Japanese “wood grained metal”. Mokume is a class of metals made with two or more layers manipulated to create a decorative visual effect. The layered structure may be formed by soldering, welding, powder metallurgy or some other process. The decorative visual effect, or pattern, is inherent to the structure of the metal and cannot wear off. Often the structure of the mokume is similar to natural layered materials such as wood or agate, hence the visual similarity.

Mokume-gane was first developed in Japan about 300 years ago to reproduce the grain found in the steel used in the famous swords of that time. The material was used for tsuba (sword guards) and hollow-ware and was produced by welding sheets of low-alloy coppers into a single block.

(Fast-forward 300 years to New York late 19th Century). Japanese design was very popular at this time and Tiffany’s of New York copied the Japanese mokume-gane by soldering copper alloys and silver together to form a single billet, using the metals to make highly decorative hollowware. Very few of these works survive, indicating custom production.

(Fast-forward to USA, mid-1970’s). Interest in historic methods of knifemaking, especially damascus steel, lead to investigations into non-ferrous pattern welding. At the same time academic metalsmithing and jewelry had begun to break away from the confines of modernist Scandinavian design and to investigate other areas of visual thought. Research by Hiroko & Gene Pijanowski into traditional Japanese mokume techniques was combined with contemporary pattern-welding investigations at a workshop at Southern Illinois University at Carbondale in early 1977. Further research by both the SIU Mokume Research Group and the Pijanowskis lead to the publishing of several papers on the fabrication and use of Mokume-gane in the late 1970’s and early 1980’s.

~ About Phil Baldwin and Shining Wave Metals ~

Phillip Baldwin, a member of the original SIU Mokume Research Group, founded Shining Wave Metals in 1983 to produce exotic metals on a commercial basis. Mokume-gane and Japanese Alloys were introduced as a product line in 1984 and have been made ever since.

Contact Phil at POB 563, Snohomish, Washington, 98290. Telephone and fax at 425 334-5569. phb@u.washington.edu



How the Handles Were Wrought~

Both Ries Niemi and Phil Baldwin contributed art to the construction of the new Snohomish, Washington, Public Library. Phil created two sets of Mokume-Gane door pulls.

Once the mokume was made into the 2" x 18" x 1/4" strips used for the handles it was formed into a shallow convex curve using a spring die in the 50 lb. Little Giant. Another die was constructed to form the door attachment stanchions and they were forged from 90-10 cupronickel. The stanchions were then drilled and tapped to receive the attachment bolts. Four-character year dates were carved in four of the six handles, each date taking at least one full day of work. This was the most difficult part of the whole project. A small half-round pad was made to match the curvature of the back of each handle and this was hard-soldered onto the door attachment stanchions. This assembly was then soft-soldered to the mokume pulls. The reason for this somewhat complicated construction was to avoid annealing the mokume, harder would be stronger. After soldering, the handles were smoothed, masked, etched and finished. A patina was applied to start the coloring. The handles were installed, easy to drill, two holes for each, and the project was finished.

It was a good experiment for working with larger pieces of mokume. One of the best things about it was the fact that my town got the first set of Mokume-gane handles made, though another proposal made by Jim Garret and me for a certain very large house was rejected several years earlier. I have to say, I prefer the fact that a public library is sporting this first use of mokume-gane.

The public's verdict on having art in their new library is clear: They love it. Money for art is considered money well spent. Luckily the art selection committee carefully chose sites, types of work and reasonable budgets, therefore taking on a significant part of the design process. Hopefully this project will serve as a model for the incorporation of art in future public buildings in the City.



September 16, 2002

Snohomish Public Library Door Pull Integrated Arts Project

A Proposal

Concept: Entry Doors: Book Spines with Marbleized Leather
 Gallery Doors: An acknowledgement of the timber.

Description. The entry doors, a total of four handles, will be approximately 18" long, 2" wide and 1/4" thick, set about 2" off the door surface. The grip elements will be formed from bronze/nickel silver mokume-gane, a metal that has a visible grain sometimes mimicking wood. The mounting elements will be fabricated from bronze, with stainless steel flush headed mounting bolts going through the door and supported by a decorative washer on the inside. The mounting system is intended to be flexible because the lack of information regarding key cylinder location.

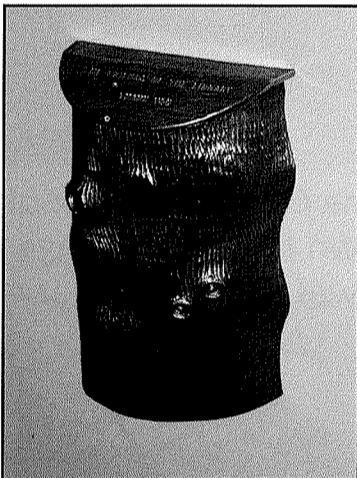
The grips are to be formed to resemble the spine of a book with one of four dates carved into the metal as per the drawing. The dates are 1873, 1877, 1910, and 2003, referring to important dates in the history of the Snohomish Public Library. The highly decorative surface of the mokume-gane is integral to the structure of the metal and cannot wear off; in fact it will become deeper with age and handling.

The gallery doors will be approximately the same size, however the mokume will be formed to resemble the surface of a tree trunk or weathered log. The pattern of the mokume will be an irregular straight grain as per the submitted sample. The wood like quality is a reference to the original forests of this region and the timber trade that has been an important part of the life of the City of Snohomish.

The uses of the interior and exterior door are different, the entry doors will be in continuous use while the gallery doors will be used more for special occasions. The greater tactile quality of the gallery doors handles complements the special nature of that space.

Items required from the Contractor or the Customer

As soon as possible a requested delivery date is needed to ensure proper scheduling of this work. In no case may the requested delivery date be less than two months from the date the request is made. Two months prior to installation a schematic drawing showing the location of panic bars, latch mechanisms, lock cylinders and other mechanical devices or hardware to be located in the vicinity of the artist made door pulls shall be sent to the artist. It is understood that the installation of the door pulls shall be at the site of the library



Donation box





Blacksmith At Work ~ Digital drawing by Layne Goldsmith, wife of Phil Baldwin, and accomplished artist in her own right. The image is based on a photograph by Mark VanS--and was taken of Phil at his anvil.



THE BLACKSMITH IN THE DELL

BY LOUIE RAFFLOER

As sappy as it may sound, especially to Irish readers of this article, in the months preceding my first trip to Ireland my head was filled with visions of endless green pastures and the soft sweet sounds of penny-whistles. O.K. So this is definitely dorky romanticizing, but give me a break: I'd been dreaming about coming to this place for nearly three decades. The visions and sounds, and I really did have them, were certainly my minds way of sedating itself as the excitement of what this sojourn would hold for me built. I followed my own advice and made very few concrete plans as to what or when I would do things.

The one focused goal was to meet and visit as many blacksmiths as I could.

So there I was September 11, 2002 (note to self: Fire travel agent!) and the descent into Dublin International Airport was smooth as Tullamore Dew. For a half hour before landing all the visions I'd had were proven true as we flew over endless pastures of green. However, the sweet sounds of penny whistles was unable to calm the panic of realizing that this was the first time I'd left the U.S. and didn't know a damn thing about backpacking around a foreign country!

I had prepared myself with a large list of blacksmiths and forgers that I had gotten from internet searches. The list I compiled turned out to be about 98% useless, with most of the list being farriers, fabricators, or dead. It's not unlike me to have had the luck that the 2% turned out to be. I first met Ted Channon and his family in Clonmel, County Cork, on the 10th day of my trip. I'll be profiling this and the next visit with them in a future article. My visit with them fetched me some great information about who to visit down the road. It was there that I found out about the Irish Artist Blacksmiths Association. (IABA). I can safely say, and with the agreement of many Irish smiths I spoke with, that it's not surprising that IABA never showed up on the internet radar. As an aside, and again, with the agreement of many Irish, that I said it to: Ireland is certainly the most civilized third world country I've heard of.



Steve Linn's Logo

On the last day of that trip, I met two people that I'd wished I'd met in the first few days. They were Colm Bagrall and Ed Bisgood of Bushy Park Ironworks. These gents are the hosts of the annual IABA forge-ins' and the founders of the leading forge-in business in Ireland. Again, I'll get into more details about their business in a future article, but for now it should be noted that any revival of public interest in forged iron work in Ireland will be clearly traceable to these guys and the founding committees of IABA. The Bushy Park Iron Works website scratches the surface of their capabilities. Check it out if you can at: www.geocities.com/RodeoDrive/Mall/6255/bushypark.html. The work I saw in their showroom, portfolios, and on the shop floor was astounding.

When I decided to attend the IABA annual forge-in in May, 2003, I confess that the visions of endless green pastures and the sweet sounds of penny whistles still haunted my expectations. But now the ringing of Channon's anvil and the prospect of meeting the peers of he and Colm and Ed shared that same mental space. If the idea of gentle visions and sweet sounds seems to clash with clanging anvils and Guinness-swillin' blacksmiths, then lets go there anyway. Harmony and order have been overrated for centuries anyway.

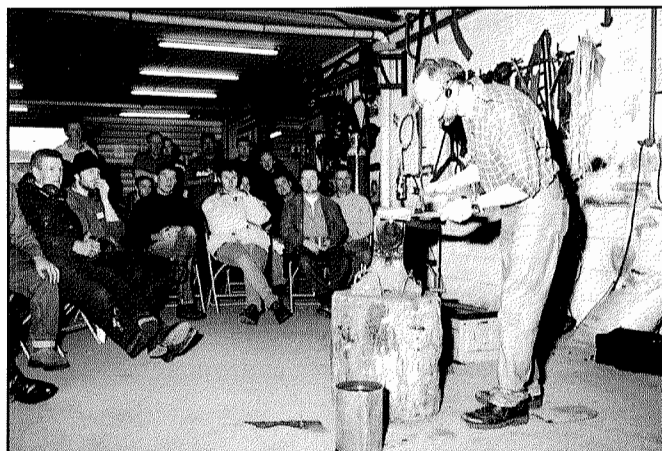
So lets fast forward to May 1, 2003. Landing in Dublin again armed with a couple of small grants from NWBA and ABANA and a fifty-pound box of Hot Iron News, Anvils Rings, and Women-In-Iron Calendars, I was ready to meet some Irish Smiths. The forge-in would prove to be the place to meet the core of dedicated blacksmiths in this country, all in one place at one time. Incidentally the magazines and calendars were sold at the forge-in and wound up fetching a nice sum for IABA. Thank you to all who donated.

The Forge-in was held on May 3 and 4, 2003 at the Bushy Park Iron Works, just outside of Dublin. Upon arrival at the forge-in, I was not surprised at how well organized and safe the working conditions were in this large shop. My unexpected visit 8 months prior gave me the same impression.

With that said, I was equally impressed with how well the forge-in was organized. The layout of the demonstration area and hands-on areas was well thought out and the 50 or 60 attendees had plenty of elbow room with something of interest to watch never far away.

I had expected to see and hear a lot of things that would be uniquely Irish at this conference, or rather, I'd hoped to have more to report on the cultural comparisons. Well, besides the sometimes impenetrable accents, the voracious thirst for Guinness, and the disproportionately large amount of aberrant orthodontics, I witnessed more similarities to our own members and customs than differences. The forge-in, although smaller in size, was attended by as a diverse range of individuals (skill level, age, gender, personal style) as our own. The levels of enthusiasm and excitement to forge was remarkable.

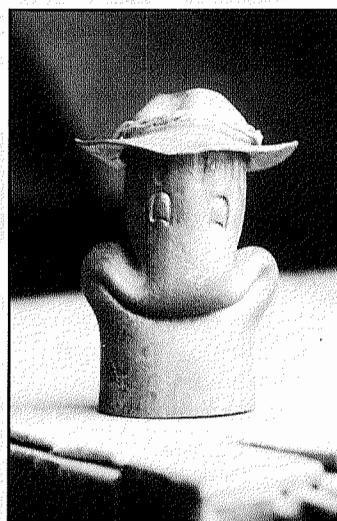
With less time, basically, two short days, there was a lot more hands-on than we are used to. The demos were shorter, approximately one hour, and after each one, the forges were lit and anyone in attendance was invited to pick and either try out one of the lessons or just do what they wanted to do, preferably of this event which was faces/masks. Bushy Park Ironworks provided a wide array of materials for us to use to interpret the theme.



Steve Lunn Demo



Stephan Chevalier of France



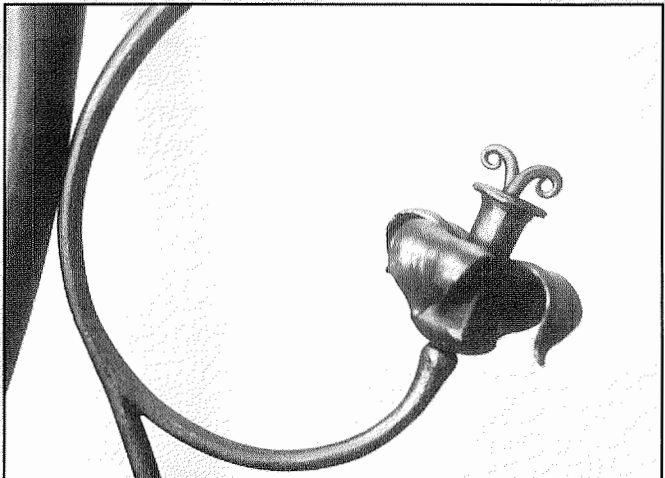
Steve Lunn's forged pipe creature

The first demonstrator on Saturday was an English Smith named Stephen Lunn who demonstrated a few very smart little techniques. One that I was impressed by was where he joined two pieces of steel together using a small strip of copper and pressing it with a relatively light amount of pressure. Stephen secured a strip of copper between two pieces of small stock with the ends flattened to nearly the same dimensions. After bringing this up to heat to the point where the copper starts to run, and becomes glossy, he pressed it together using a hammer and his arm's force (not a blow). This method fused the two pieces of steel with a very strong bond. I'll be experimenting with this as a **HOT TIP** for a future Hot Iron News.

The next portion of his demo involved using some self-styled top and bottom swages (see photos). We are all aware that there are usually 50 correct ways of doing something in our trade, and Stephen did well in his method. The simple-to-use swages had the top and bottom details needed to create the eyes, nose, and mouth seen in the mask pictured with the tools. The hard and detailed work put into creating these dies, in his own personal style, is one more example of how we can spend two days on tooling a job and twenty minutes getting the final result. All these tools were great to see by pro's and amateurs alike because maybe even one person in the crowd had been trying to figure something out on a project and this, or some variation thereof, was the answer.

Another impressive part of Stephen Lunn's demo was the creation of another piece for the theme. On this piece he took a piece of pipe and by simply punching in a couple of cartoon-like eyes, filling in the sides (to weaken the pipes structure), and pressing down on the top with a hydraulic press, created a very whimsical little creature. This whimsy is a minor trademark of Stephen's style.

After a lunch break of traditional Irish stew, work started in the hands-on area. There was a lot of activity and energy, with all varieties of techniques and ideas creating lots of slag and sparks. Many folks set out to making various masks using all sorts of stocks, from sheet metal to flat bar and everything in between. While many masks being made were slightly abstract, many others could actually have been worn. In most cases, it was hard to tell where someone was going with their design and in all cases they were going in different directions. I'd overheard that these masks would travel in a group show on a future date.



The next demonstrator was another Englishman named Mark Constable. His demo, for the most part, covered Damascus billet-making, mokume' and getting patterns in these by using the drill press. Here was another example of a demo I've seen many times with something new added to it. Once Mark fused the billet thoroughly he used a drill press to drill random holes over the surface. The holes were deep enough to penetrate some layers but seemed to be no deeper than the cone shape of the drill bit. I assumed that this would prevent cold shuts that may occur in the final forging. He was doing the drilling part after the first step, and cooling, and I had wondered off to watch other activities. That being said, I am not sure if he did a second set of holes after the flattening of the first set. Variations in the pattern of the polished final piece indicate that he may have.



Top: Brass/Copper billet Bottom: Wrought iron

The next part of Mark's demo was a real bonus. Using a method he developed upon the request of some people who had hired him to teach a workshop on producing a mokume' billet in a shop that possessed only basic blacksmithing equipment, his solution was our demo. Once again, I will be writing about this technique in a future issue, but to sum it up, he used the natural differences in the rates of expansion of dissimilar metals to create a hammer-free fusion of copper and brass. The result was very successful.



Mark is a very congenial person with a natural talent for showing what has to be done.

The rest of the afternoon went on with more independent forging by all. Everywhere I went in the group, I was reminded of our own gatherings. There was shop talk and information being exchanged on a wholesale rate. Anecdotes about current work being done or nightmare client gossip mirrored our own experiences greatly. By the time this forge-in would be finished I will have come to the conclusion that, as I mentioned earlier, the people involved in forging in Ireland are very much like we are here.



Toward the end of the day on Saturday conversations turned to the subject of where the evenings festivities would be held. After the hard day, we would all meet at the Blue Gardenia to eat and drink what would amount to putting a spike in the Guinness stock prices. We all enjoyed a seemingly endless supply of delicious fingerfoods and snacks. It was very clear that this was an annual event, like ours, that brought many people together for the first time since last year, with new friends and old friends connecting again. In Ireland, the level of hospitality and good cheer seemed to be so high that you would be hard pressed to pick out the groups who had just met from the old friends.

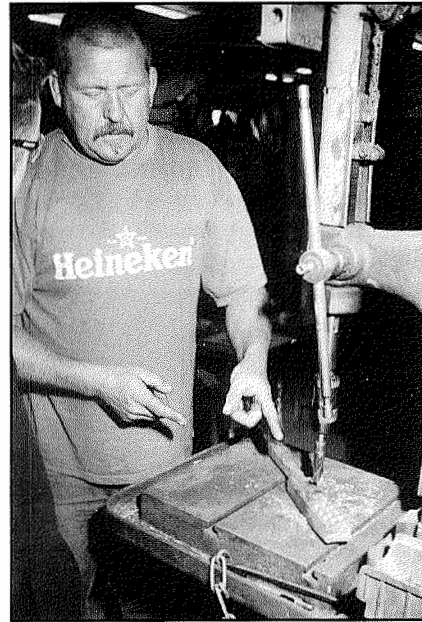
That evening will not be forgotten soon and neither will the work of yet another English smith named Phil Johnson. Phil treated us to a slide show of some incredible public art pieces his shop in England has been commissioned to do. His vast repertoire of very unique modern design all appear to have been done using traditional technique. The work, I recall, was mostly functional (certainly sculptural) with several astounding sculptures. I highly recommend checking out their website: there is lots of great ironwork to see. I will list the website at the end of this article.

Sunday morning commenced with minimum evidence of the damage caused to our livers the evening before. Okay, maybe before the coffee and tea hit some feet were dragging and certainly squinted eyes and unshaven faces were to be expected. This all ended as the forges got fired up and the hammers started swinging. The mask projects were shaping up and looking good.

After a while, a pair of French smiths named Stephan Chevalier and Jean Michele treated us to a lesson in *repousse*. It was the perfect lesson using stakes in the vise and their own designs of hammers. A lot of people put this lesson to use immediately on the projects and many watched as they continued coaching people one-on-one. The language barrier evaporated as the skill of these artists spoke for itself. Like all of the demonstrators they were very efficient at getting maximum knowledge across in a tight amount of time.

The last few hours of the day saw the shop getting out on the display table. It was a fine array of ironwork and a very diverse display of technique. Perhaps one of the greatest successes of the weekend was by Tony Murphy who created the mask that I thought to be one of the best. Don't get me wrong, there were some fantastic works completed and competition was on nobody's mind. Tony's success comes from the fact that although he's an extremely talented draftsman, he's had little experience with metal work at the shop level. The spirit and energy of the forge-in can best be measured in the accomplishment of someone who is new at all this. That's impact!

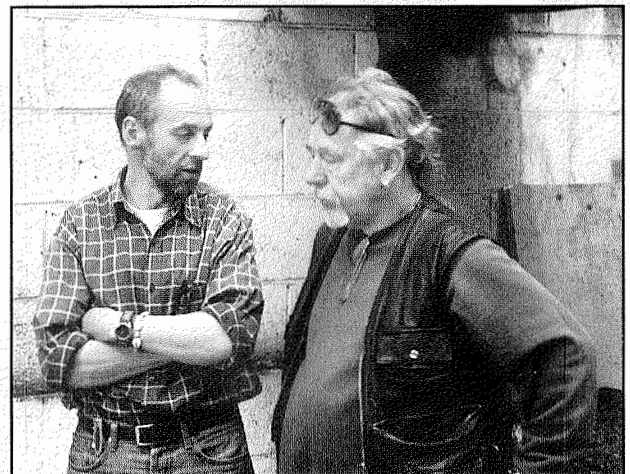
My hat is off to the IABA for turning out a great crowd and putting on a world class forge-in. I look forward to the opportunity to visit Ireland as soon as possible and meet these folks again.



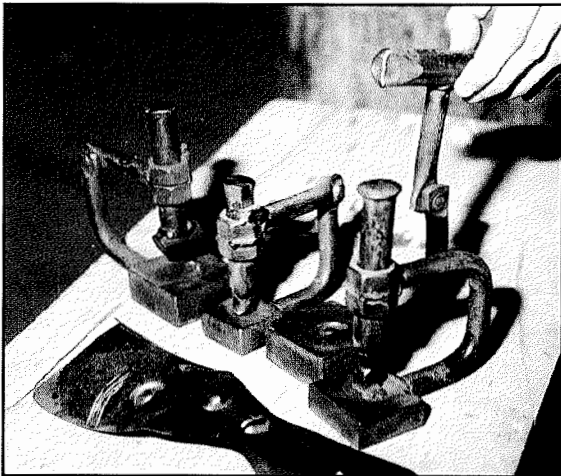
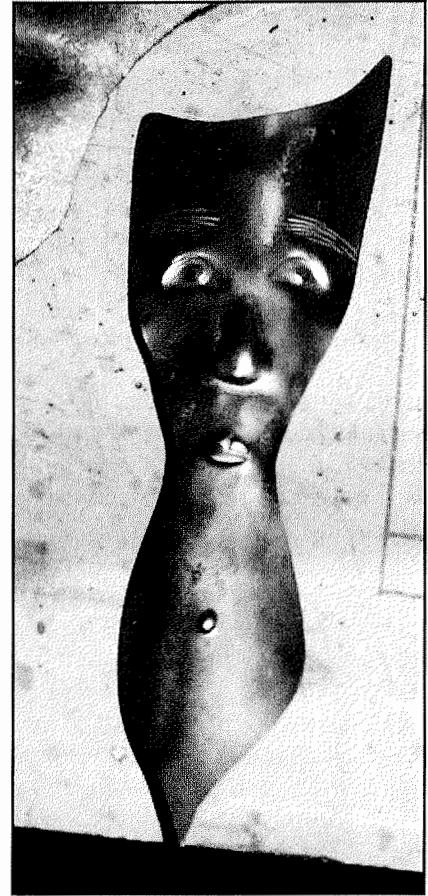
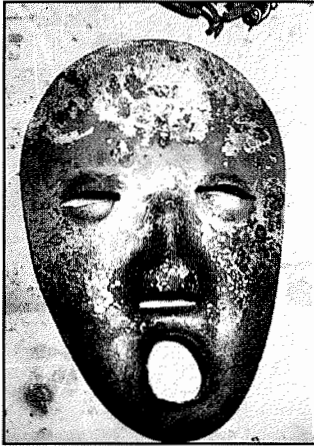
Mark Constable drilling billets



Mark Constable



Steve Lunn and Gary Goodspeed





The Irish ARTIST BLACKSMITH ASSOCIATION BY SEAMUS RABEN

In 1998 a group of blacksmiths in Ireland felt that an association should be set up for those interested in the craft. Five years on we have a good 50 members, regular forge-ins and a newsletter to be proud of.

In the northwest of Ireland there is a small town called Belmullet. Situated in northwest of County Mayo, Belmullet, in 1998, opened a school for teaching the skills of blacksmithing. Paul Devlin was a tutor and experienced artistic blacksmith. It was decided that an organization for blacksmiths centered around the school would be beneficial for the students. Paul and some of his students set about to contact as many known blacksmiths as possible. A meeting was held in Athloan, County Galway. An ideal meeting point as it's in the heart of Ireland. Thus, Irish Artist Blacksmith's Association was born.

Later that year, IABA held it's first forge-in at Belmullet. It was a great success and I believe a large crowd attended. A committee was set up with a chairman, vice-chairman, Treasurer and Secretary. Each year at the annual meeting a new committee is voted in. Like anything young, the association did have it's teething problems. Some members were not happy about certain aspects of the organization, for example, the way the newsletter was presented, safety at forge-ins, and the list goes on. Time has smoothed a path and five years on IABA is moving forward with more common agendas than uncommon ones.

IABA has many missions. One of our main objectives is to spread the word. We want to show and educate the people of Ireland what an artistic blacksmith is. We want to teach them what good-quality ironwork is. We want to be a forum for blacksmiths, ironworkers, artists, metalworkers, and generally any person who is interested in the craft. We hope to preserve the traditions of the forge. I am proud to admit that these ideas and objectives have been put into action with rewarding results.

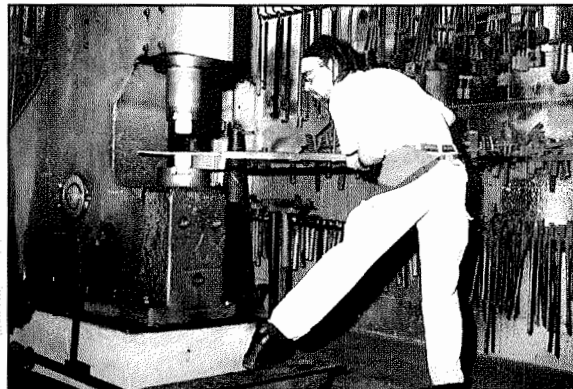
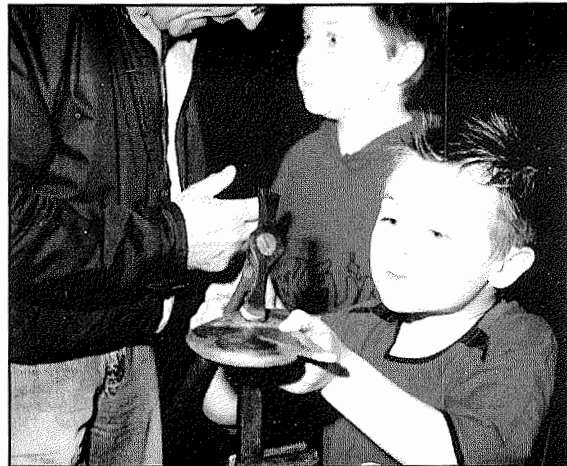
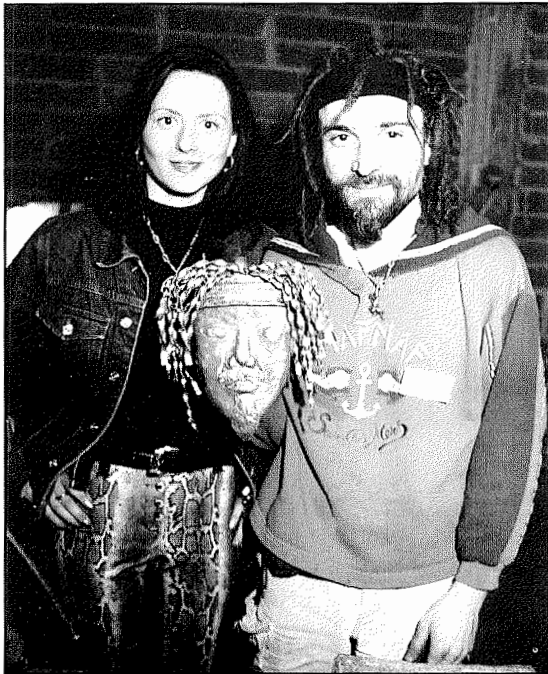
We have had some funding from the government, which has allowed us to print a color newsletter and host forge-ins. Most of our funding comes from memberships and fundraising events. That reminds me, Louie brought with him, on his last trip in May, calendars, copies of the *Anvil's Ring*, and various other-use bits and bobs which were sold and the money given to IABA. Thanks a million, guys!

The various forge-ins we have had opens new doors. For example, Bushy Park Ironworks held a forge-in this May, 2003. The two-day event attracted smiths from all over the world. We met members from other blacksmithing organizations such as BABA and ABANA, who offered many ideas and helpful suggestions. Forge-ins in public places have been very effective. The public loves them. Our newsletter is being sent to architects, schools, universities, government departments, the media, and other craft organizations.

Not all members take part in the running and organization of IABA. In fact, only ten turned up this year! There seems to be a core of about seven members that take an active role. I'm not moaning about this, this is the way things are done and that's that. There will always be a core of different characters. They will come and go and the blacksmith will have their say in society.

Sadly, the school in Belmullet does not exist anymore. The teething problems never seemed to go away. A pity really, as it was a state-of-the-art facility with a dedicated staff and it was really the birthplace of IABA.

NWBA's Kilted Goodwill Ambassador to Ireland



Paul Thorne Forging Press

Demo Notes

by Al Griswold

FALL CONFERENCE
10/10/03
PAUL THORNE
PRESS FORGING
PG. 1

ROUNDED IMPACT SURFACES ON BLACKSMITH TOOLS IS ESSENTIAL DUE TO THE ZERO LIKELIHOOD OF PERFECTLY ALIGNED BLOWS. WHEN PRESS FORGING, ROUNDED SURFACES ARE NEVER USED. FLAT, PERFECTLY ALIGNED TOOLS ARE ESSENTIAL. DO NOT RUN HAMMER TOOLS UNDER A PRESS.

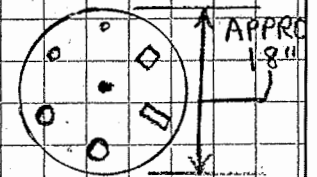
YOU CAN DO EVERYTHING WITH A PRESS WITH THE EXCEPTION OF PROCESSES THAT REQUIRE A LONG HEAT WORK TIME, I.E. DRAWING. A PRESS IS LIKE YOUR 'STRONG ARM' - INFINITELY CONTROLLABLE.

'C' FRAME PRESSES TEND TO OPEN UP UNDER LOAD. YOU MUST REINFORCE THE OPENING.

HAND HOLD RAILS ABOVE THE STRIKER ARE AN IMPORTANT SAFETY FEATURE. THE CONTROL CAN BE OPERATED WITH BOTH FEET FLAT ON THE FLOOR, WHERE THE TOE OF THE SHOE ONLY IS USED.

PAUL HAS A SLIDING CRADLE ON THE PRESS, WITH $\frac{1}{2}$ " MARKS ON THE LENGTH & WIDTH OF IT, FOR QUICK REFERENCE.

PAUL HAS A ROTATING 'SWAGE BLOCK' THAT FITS INTO THE PRITCHEL HOLE ON HIS SLIDING CARRIAGE, AND ROTATES TO THE DESIRED SIZE/SHAPE, WHICH IS ALIGNED WITH THE THRU-HOLE IN THE TABLE.



LONG AXIS PRESS TOOLS ARE ILL-ADVISED.

PAUL'S PUNCHES ARE S7 TOOL STEEL.



RULES

1. KEEP WORK HOT
- 2) ALLOW MATL. TO ESCAPE
3. PERFECT AXIAL ALIGNMENT
4. FLAT SURFACES
5. NO LONG PRESS TOOLS

HAVE AN ADJUSTABLE LIGHT ON THE PRESS.

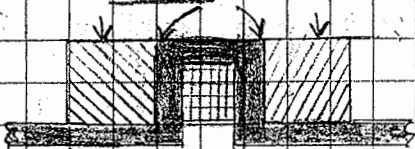
WHEN PUNCHING ON A PRESS, THE ENTIRE PUNCH IS SURROUNDED WITH INTENSE HEAT, RATHER THAN THE END OF THE PUNCH WHEN HAMMERING. THERE IS INCREDIBLE FRICTION, SO A LUBRICANT IS NEEDED. GRAPHITE MIXED WITH SOMETHING. CHAIN LUBE WITH MOLY WORKS GREAT! (PAUL'S 'MIRACLE PUCKY'). KEEP A WATER QUENCH HANDY ALSO. MAKE THE END OF THE PUNCH ROUND TO PREVENT SPALLING.

→ YOU NEED A PRESS WHEN:

- 1) YOU'RE OFF-BALANCE
- 2) WHAT YOU'RE DOING IS SCARY
- 3) CONTROL IS AN ISSUE

EXAMPLE:

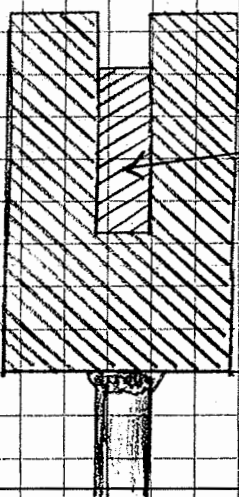
IN ADDITION TO MAT'L. THICKNESS, THIS TOTAL GAP SHOULD BE $\pm 1/16$



- 1) POLISHING AREAS OF THE DIE, AND
 - 2) LUBRICATION
- ... WILL HELP PREVENT CREEPAGE.

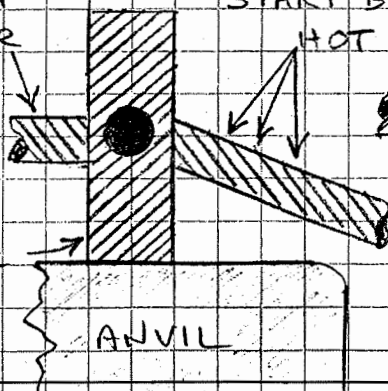
WITH A PRESS, 10 TO 20 SECONDS PER HEAT, TOPS.

END VIEW



FLAT BAR

DYE

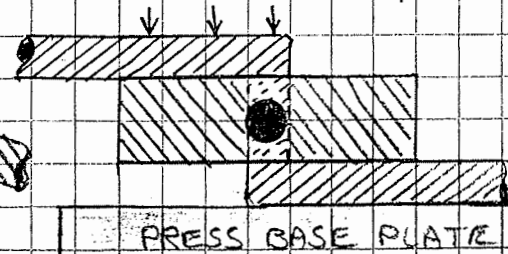


START BEND HOT

ANVIL

DYE IS ROTATED

UNDER THE PRESS, BOTH SIDES, FLAT BAR HOT.



PRESS BASE PLATE

- S - STUDY THE TASK. UNDERSTAND THE JOB.
- A - AWARE OF ALL HAZARDS
- F - FOCUS ON THE ACTION (DO HAVE TUNNEL VISION.
- E - ERROR ENVIRONMENT RELATED TO YOUR TASKS
- T - THINK, TEST, TRY
- Y - YOUR PROTECTION IS YOUR LIFE. SAFE TODAY - WORK TOMORROW

PAUL MAKES HIS STAMPING DIES USING A GRINDER, WITH HIGH-CARBON STEEL. HE ALSO USES OLD $\frac{1}{8}$ " GRINDER WRENCHES, CUTS OUT THE PATTERNS (LEAF, FOR EXAMPLE), AND PLUG WELDS THEM ON THE FACE OF A ROUND 'NICKEL' OF MILD STEEL.

WHEN MAKING DIES, KEEP THE WIDTH THE SAME, OR PREFERABLY GREATER THAN ITS HEIGHT. GO THE OTHER WAY - FAILURES WILL RESULT.

➡ PUT HANDLES ON ALL DIES. NO 'FINGERS AND TONGS.' IT ONLY NEEDS TO BE STRONG ENOUGH TO SUPPORT THE WEIGHT & MANEUVERING OF THE TOOL ($\frac{1}{4}$ " ϕ WORKS)

THERE IS VIRTUALLY NO MAINTENANCE TO USING A PRESS.

USE 'KITTY LITER' TO SOAK UP HYD. OIL, TO REDUCE THE FIRE HAZARD.

A 90° BEND REDUCES THE STRENGTH OF A PC. OF STEEL BY 50%.

➡ BOOK:
'BUILD YOUR OWN HYDRAULIC FORGING PRESS'
BY JAMES R. BATSON

PUBLISHER - BATSON ENGINEERING & METAL WORKS

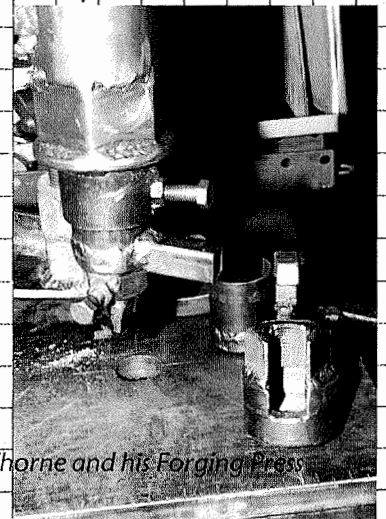
176 BRENTWOOD LANE

MADISON, ALA.

35758

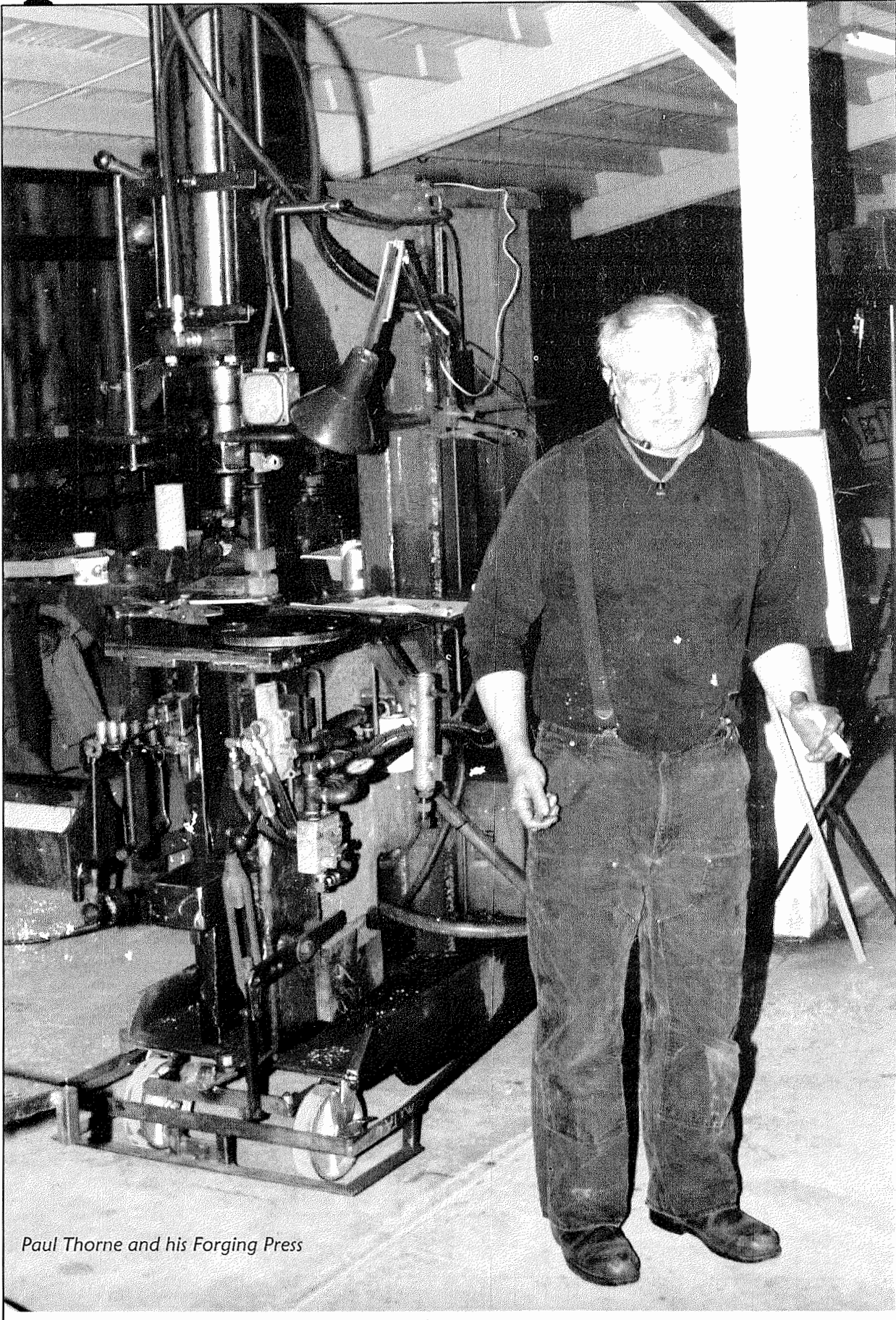
(205) 971-6860

(256) 971-6860



Paul Thorne and his Forging Press

Paul Thorne and Press



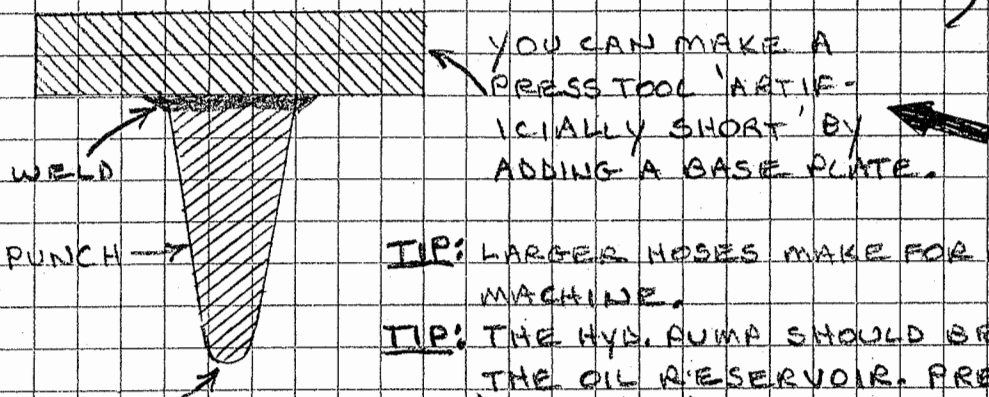
Paul Thorne and his Forging Press



2003 FALL CONF. 2003
MT. VERNON, WA.
PAUL THORNE
10/11/03 PG.

- 1) **B** - BALANCE. ALL FORCES MUST BE IN BALANCE. INERTIA DOESN'T WORK.
- 2) **A** - ALIGNMENT. ALL FORCES MUST BE ALIGNED - NOTHING OFF CENTER.
- 3) **S** - SQUARE. EVERYTHING TO EVERYTHING. NO NEGOTIATION.
- 4) **S** - SHORT. ALL TOOLING. THE RATIO OF WIDTH TO HEIGHT NO LESS THAN 1 TO 1.

THE MANDATORY RULES FOR USING A PRESS.



(ROUND END) TO PREVENT HEAT EROSION. SEE NOTES OF 10/10/03.)

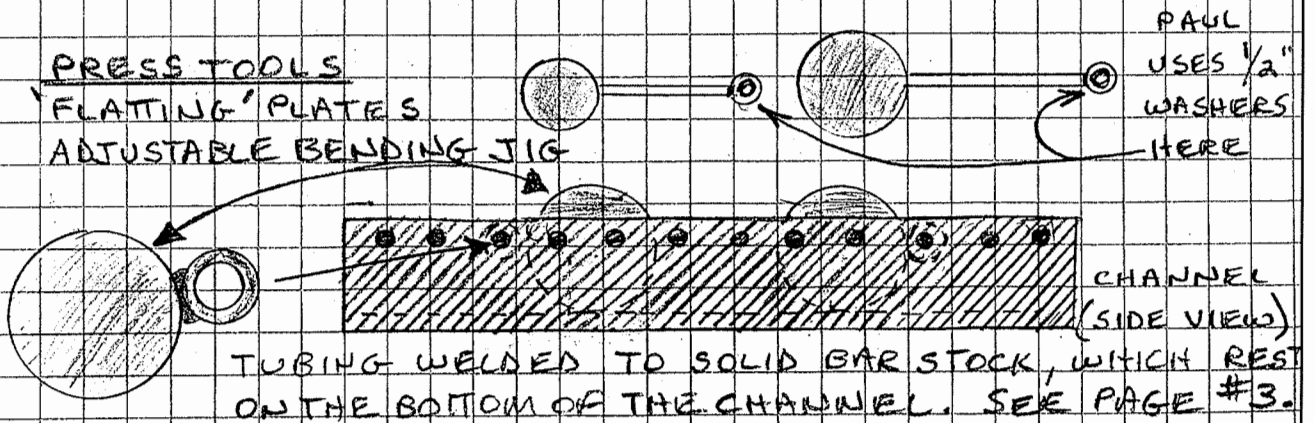
TIP: LARGER NOSES MAKE FOR A QUIETER MACHINE.

TIP: THE HYD. PUMP SHOULD BE BELOW THE OIL RESERVOIR. PREVENTS 'FROTHING'.

TIP: ACTUATING LINKAGE FROM THE FOOT PEDAL TO THE VALVE SHOULD HAVE NO PLAY OR SLOP IN IT.

ALL TOOLS SHOULD BE IMMEDIATELY AVAILABLE. PAUL HAS HIS ON THE FRONT OF HIS PRESS.

A WATER QUENCH SHOULD ALSO BE IMMEDIATELY AVAILABLE FOR THE COOLING OF PRESS TOOLS.



PAUL USES 1/2" WASHERS HERE

TOOLS (CONT'D)

ROTATING SWAGE BLOCK (SEE NOTES FROM 10/10/03)
 SLIDING BED PLATE - GIVES 3 SIZES OF BOTTOM HOLES,
 'STRIPPER' - A SCREW-DOWN CLAMP MOUNTED ABOVE
 AND BEHIND THE RAM TO HOLD DOWN THE WORK
 WHEN REMOVING STUCK TOOLS. PAULS IS MOUNTED
 TO THE END OF A PC. OF 1/4" ALL THREAD WHICH
 THREADS THROUGH THE STRIPPER SHOE. THERE IS A
 LOCK NUT ABOVE IT.

SAFETY TIPS

- 1) WEAR SAFETY GLASSES
- 2) FUMES & DUST

COMMON SENSE SHOULD PREVAIL. MONITOR PROPANE
 & WELDING/BURNING GAS FUME PRODUCERS.

COPPER IS POISON

ZINC (GALVANIZATION) IS POISON. BADBADBAD,

CADMIUM. BADBADBAD.

STAINLESS. COPPER & NICKEL. TAKES A WHILE TO
 FILL THE ILL EFFECTS.

DONT PUT YOURSELF IN THE POSITION OF DECISION MAKING
 WHEN YOUR WORK IS AT HEAT AND READY. HAVE PUNCH(ES),
 BOTTOM BED PLATE/SWAGE HOLE(S) ON HAND, READY, AND
 OR MARKED.

USE YOUR GRAPHITE & OIL-GREASE LUBRICANT.

SS OR S1, 1" ROUND MAKES EXCELLENT PRESS TOOLS
 (PUNCHES, SLITERS, CHISELS, ETC.) PAUL DOES
 NOT HEAT TREAT THE TOOLS DUE TO THE HIGH
 HEAT THEY WILL BE SUBJECT TO, SPECIFIC
 TO PUNCH OPERATIONS.

USE A DEBURRING WHEEL (BENCH GRINDER) TO
 FINISH YOUR TOOL(S). IT GIVES A NICE FINISH,
 AND ALLOWS THE TOOLS TO RETAIN THE
 LUBRICANT VERY WELL.

WITH A ROUND DRIFT THE HOLE WILL NOT EXPAND UNIF-
ORMLY. A 'WEDGE' SHAPED DRIFT (WITH A ROUNDED
END) WILL ALLOW CONTROLLED UNIFORM EXPANSION.



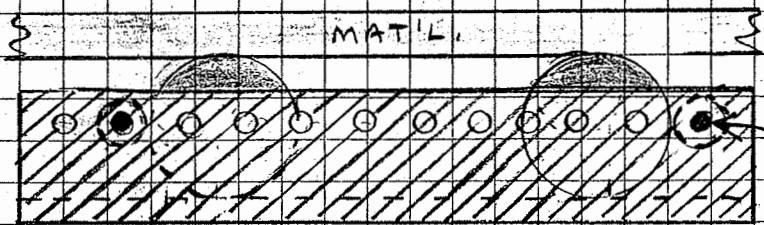
WIDER
AT
BOTTOM
&
ROUNDED



BENDING
CAN BE DONE
EASILY COLD.

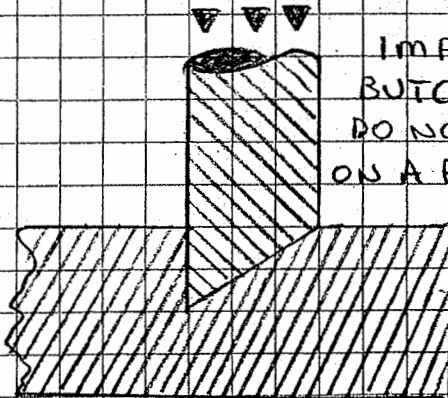


ADJUST THE ROLLERS
AND MOVE THE MAT'L
AS NECESSARY TO GET
THE DESIRED RESULTS.



PAUL USES BOLTS FOR POSITIONING PINS.
STRAIGHTENING IS A VERY EASY OPERATION
WITH A PRESS, AND ITS DONE WITH THE
WORK HOT. USE FLATTENING PLATES.
DETAIL WORK ON THE FLATS WILL BE
UNAFFECTED DUE TO THE 'AVERAGING'
OF PRESSURE. IF YOU'RE WORRIED
ABOUT EDGE DETAIL, USE A PIECE OF
WOOD AS A BUFFER.

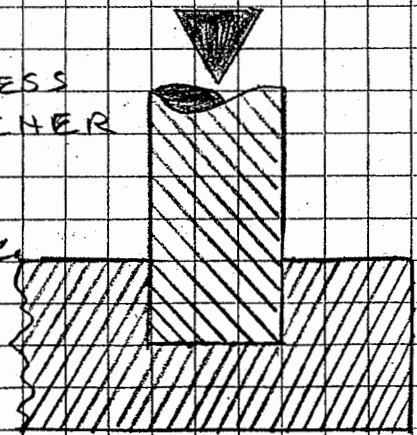
PAUL USES SEVERAL STEEL TABLES THAT WILL ALL BOLT
TOGETHER IF INCREASED WORK/LAYOUT AREA IS
NEEDED.



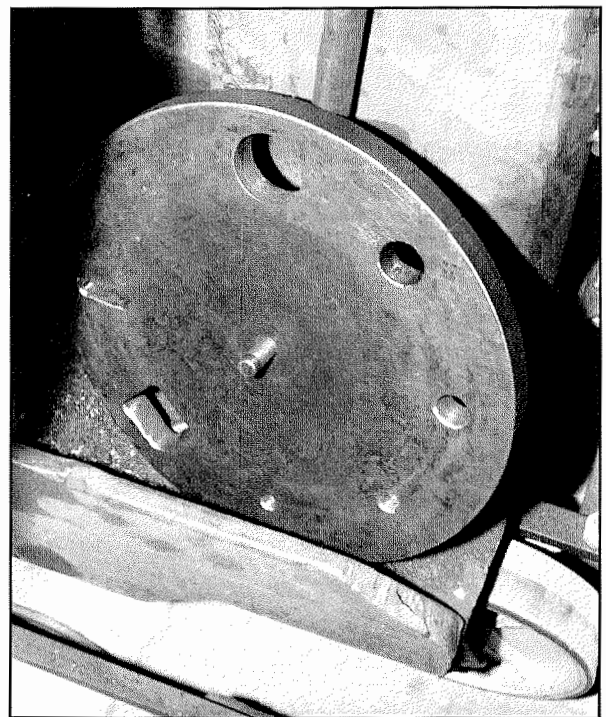
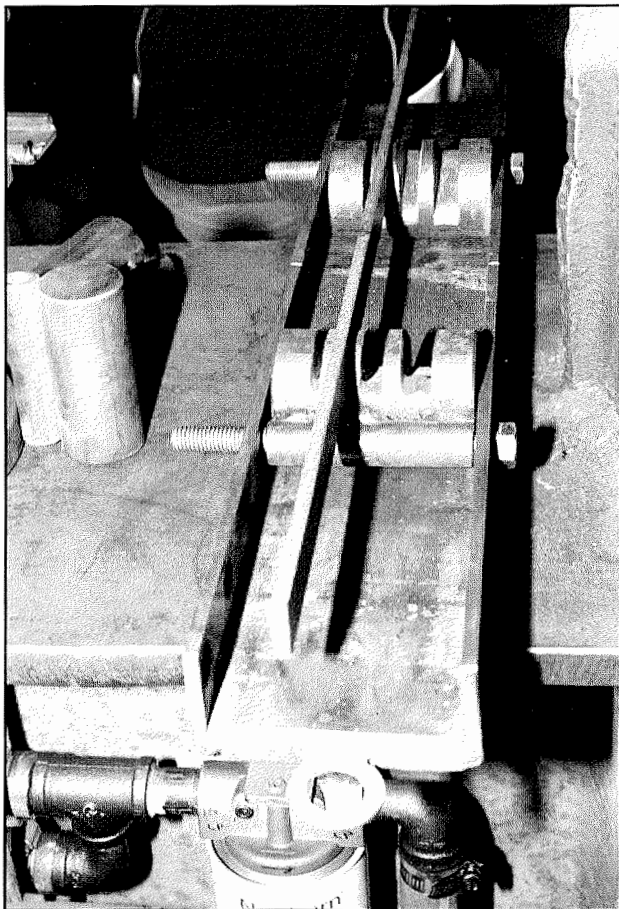
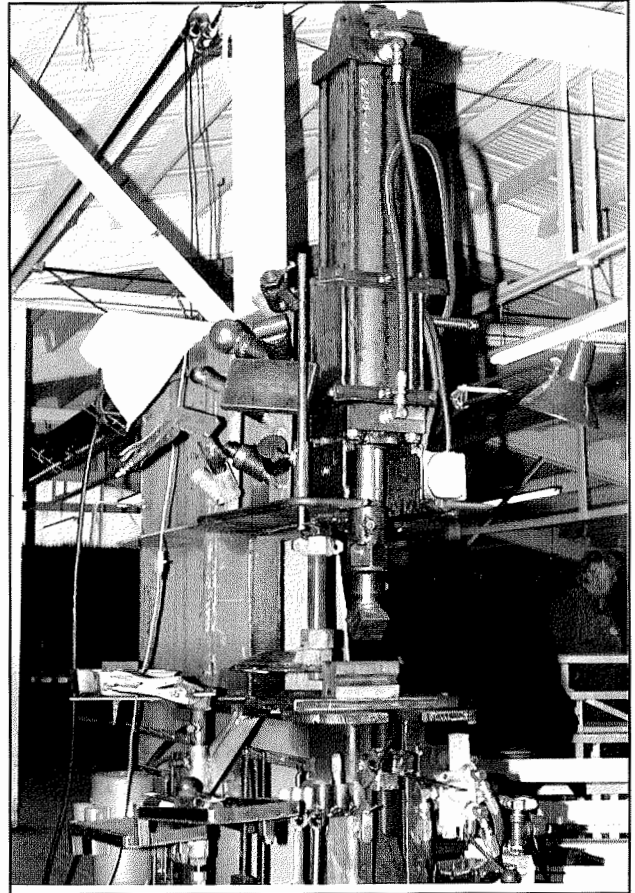
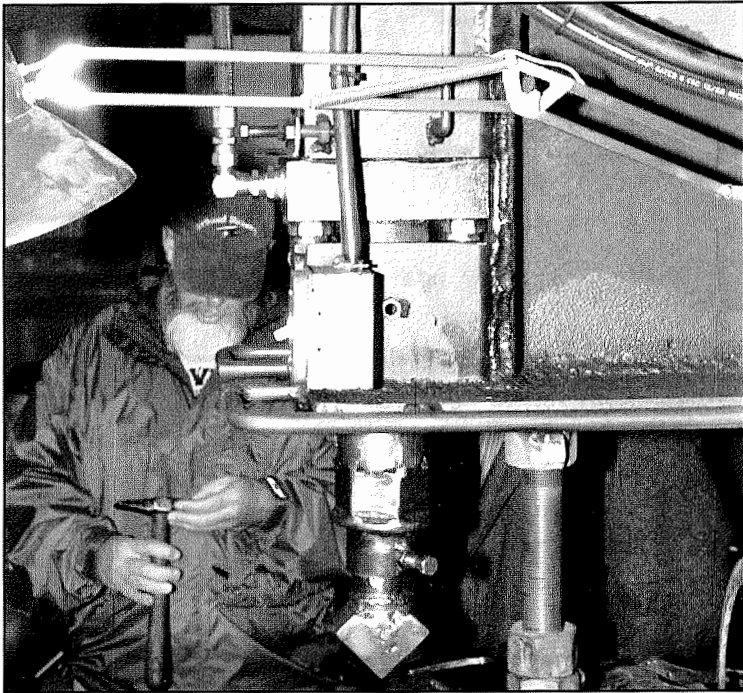
IMPACT
BUTCHER.
DO NOT USE
ON A PRESS.



B
A
S-SQUARE
S



PRESS
BUTCHER



2003 FALL CONF.
 SUN. 10/12
 PAUL THORNE
 PRESS FORGING
 PG. 1

➔ PRESSING HOT WORK - THE MAT'L WILL FLOW.
 PRESSING COLD WORK - THE FORCE WILL FOLLOW THE
 PATH OF LEAST RESISTANCE. BALANCE / ALIGN-
 MENT / FLAT LEVEL SURFACES IS CRITICAL.

➔ SHORT TOOLS. WIDTH TO HEIGHT, NO LESS THAN
 1 TO 1. LONG TOOLS EXPONENTIALLY MULTIPLY
 MINISCULE MISALIGNMENTS. IT IS ESSENTIAL
 MISALIGNMENTS BE AVOIDED.

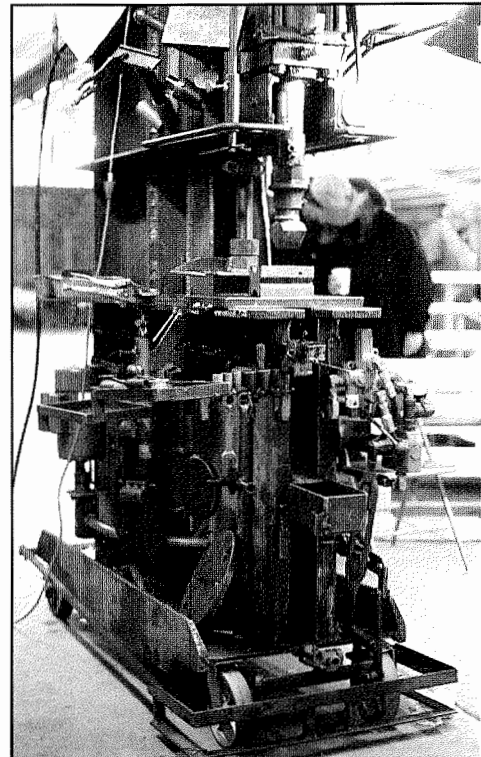
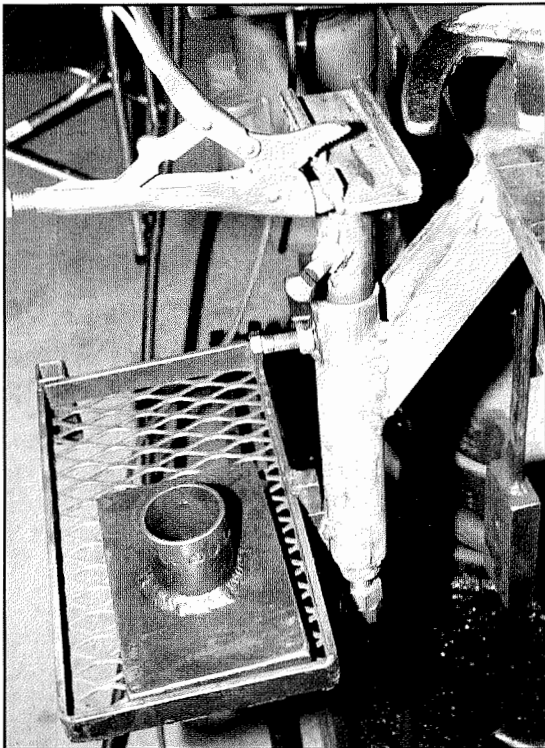
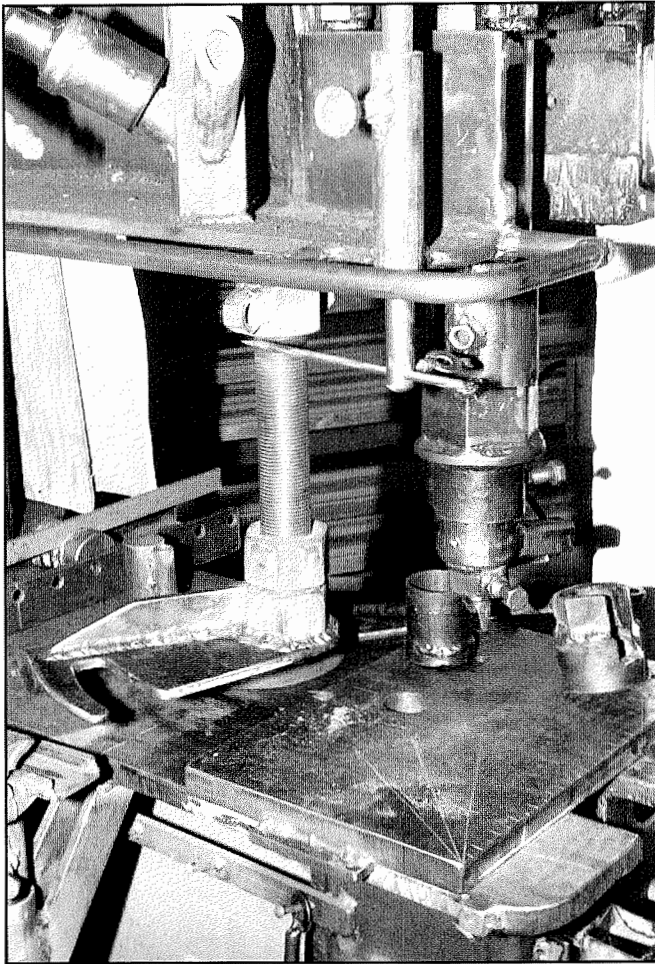
IT IS MORE DIFFICULT TO STRAIGHTEN A PIECE
 WITH A POWER HAMMER. ONE ASPECT OF
 THIS IS YOU ARE PUTTING MORE STRESS INTO
 THE PIECE WITH EACH BLOW.

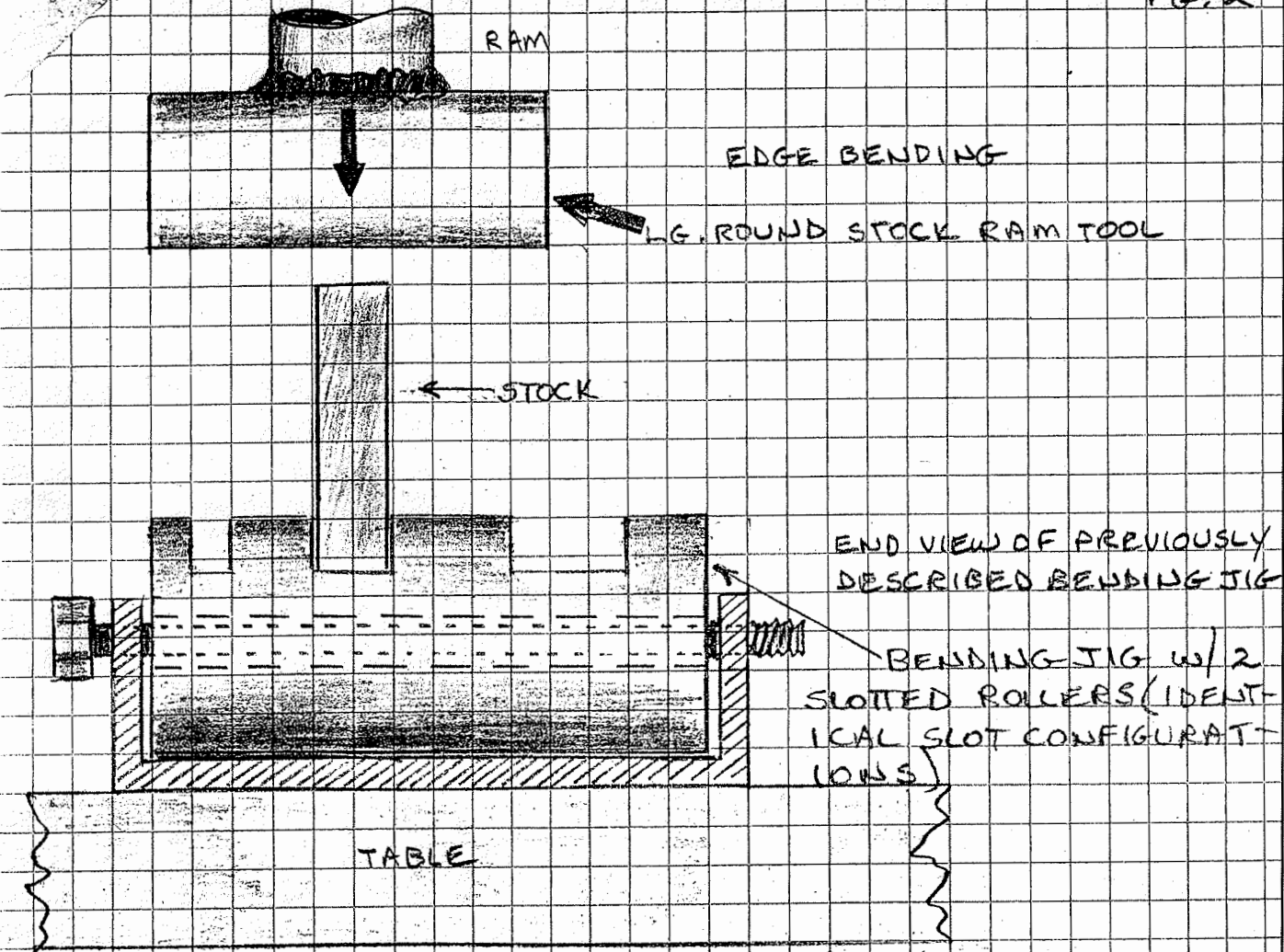
MONEY MAKING

STRAIGHTENING. WHERE THE MONEY'S AT.

- 1) MUNICIPAL MAINTENANCE WORK
- 2) PROPELLERS
- 3) DECORATIVE FASTENERS/WASHERS. IF YOU
 THROW THEM IN AS A FAVOR TO YOUR
 CLIENT, THEY WILL LOVE YOU FOR IT.
- 4) FORGE WITH COPPER AT A DULL RED, BUT
 INSURE IT'S ANNEALED.
- 5) YOU CAN FORM PLATE INTO VIRTUALLY ANY
 SHAPE. WEEDBURNERS AND KAOWOOL
 TENTS WORK WELL FOR ANNEALING WORK
 HARDENED PLATE.
- 6) EDGE BENDING. REALLY HELPS TO SELL
 HEADBOARDS FOR BEDS.
- 7) LARGER MAT'L. IS EASIER TO EDGE BEND

PRACTICE THE NECESSARY PROCESSES YOU WILL
 USE ON YOUR PROJECT WITH SCRAP PIECES OF
 THE SAME SIZE AS YOUR FINISHED WORK,
 WITH THE SAME TOOLING YOU WILL USE LATER.

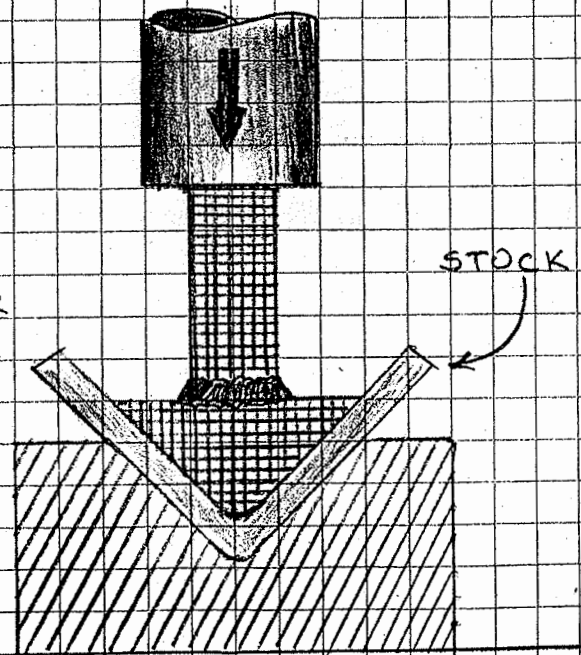




Al Griswold
 Union River Forge
 2796 N.E. Old Belfair Highway
 Belfair, Washington 98528

"Thanks so much for the kind words a lot of you have bestowed upon me in regard to my notetaking and drawing attempts. The only parts that I want to take credit for are the mistakes! Despite efforts to get it right, once in awhile one gets through!" ~Al

JIG AND PRESS TOOL FOR MAKING ANGLE IRON.



Air Hammer from ABANA Plans by Bert Romans . .

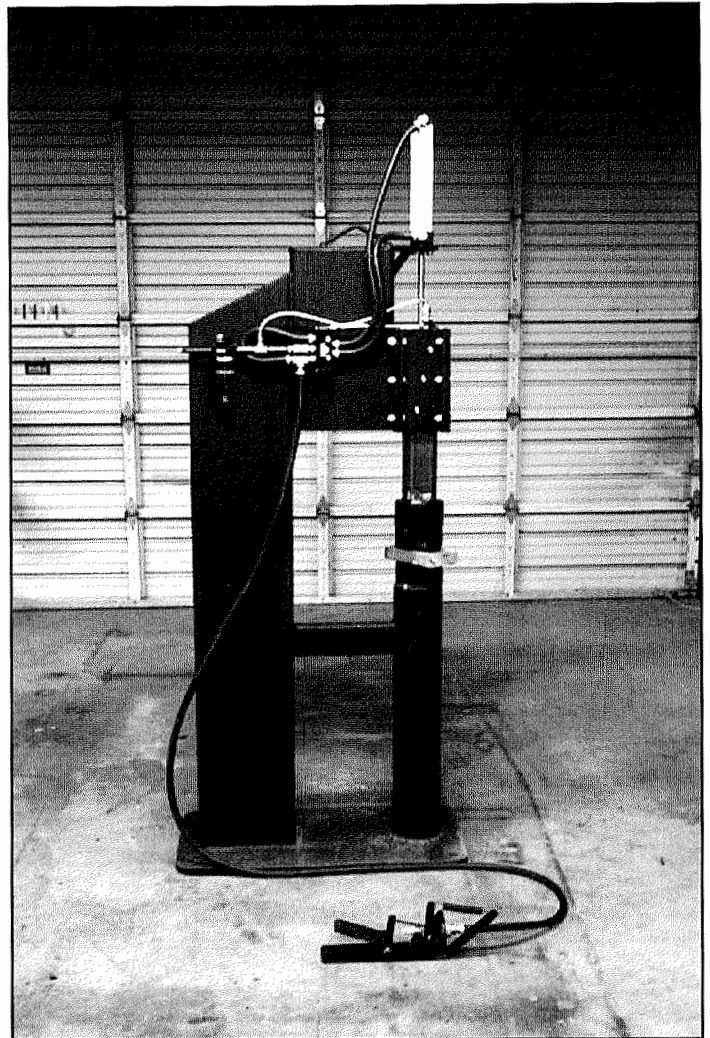
I needed a power hammer to expand my options for creativity. Without the right equipment, some designs cannot be executed. Therefore, I NEEDED a power hammer!

My background is in engineering, mechanics and welding. My interests are varied but center on making things, with metal as the medium. Welder, hammer, press, forge, bender and hand tools; they all allow me to manipulate metal. Metal is what I do. Custom cars and motorcycles, gates and railings, sculptures and tools, anything is fair game. Forging is relatively new to me and allows me to explore and utilize shapes and textures that were difficult or not attainable with other methods. It didn't take long before I realized that I was limited by what I could achieve with a hand-held hammer. When I could stand it no longer, I sat down and assessed my options: Mechanical or pneumatic? New, used or homebuilt? How big a hammer do I need? I also asked: How am I going to use it? How much will it cost?

I am a professional metal fabricator (d/b/a Renaissance Metal Art) and a starving artist. My best choice was to invest my time and build rather than spend my money and buy. I did not set out to re-invent the wheel, but to use available information and parts, mixed together with my personal touch, to assemble a useable, reliable piece of equipment. I wanted something that would serve my needs, and make a respectable addition to my shop. The decision to design and build a hammer pushed me to select an air (pneumatic) hammer. The design is straightforward and uncomplicated. I wasn't particularly interested in fabricating a mechanical hammer. I nixed the prospect of buying a used mechanical hammer because they are not affordable and more importantly they are not elegant. They are heavy and expensive to ship. They are messy and noisy and whenever I buy something that has been rebuilt I am always disappointed. I knew I wouldn't be happy with a mechanical hammer.

From the beginning, I established parameters designed to meet my needs. My hammer needed to run on my five-hp air compressor. It needed to have a small footprint to save precious floor space. I wanted it to be as quiet as possible and to be clean. I didn't want to contend with the fuss and mess of a mechanical hammer.

My design uses a basic layout and pneumatic circuit from ABANA plans by Ron Kinyon. From that starting point I decided to spend some design time on the ram slides. How could I improve this area to eliminate metal-to-metal contact and the use of grease while still controlling the ram? My solution was to use UHMW (Ultra High Molecular Weight Polysomething-or-other) as a low friction slide surface. It can be run dry (no mess) and is very long lasting. I then wanted



to develop a means to capture the slide and yet provide uncomplicated adjustability. My design uses simple shimming to effect precise ram alignment.

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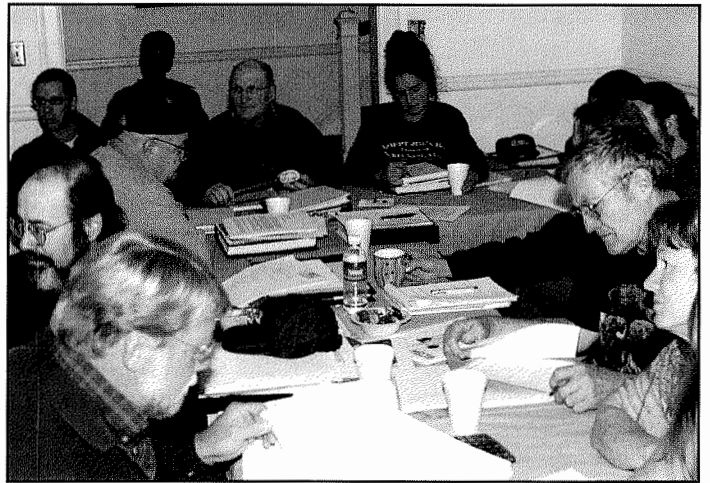
be run dry (no mess) and is very long lasting. I then wanted to develop a means to capture the slide and yet provide uncomplicated adjustability. My design uses simple shimming to effect precise ram alignment.

The starting point of the frame design was the height dimension from floor to the top of the bottom die. I did not want to bend over to forge. I surely did not want to hold a hot piece that I was working on in my armpit. I set that dimension at 34" (+/-), then worked vertically up, stacking the dimensions (die and base, mounting plate, ram, adapter and cylinder rod stick-out) until I found the top plate of the frame. This surface is where the cylinder is mounted. I located the cylinder directly over the center of the ram to eliminate any moment (offset). This eases stresses in the mechanism so the machine doesn't work against itself. Reliability is enhanced. In order to have room for whatever I would be forging I used a 12" spacer to offset the ram assembly from the main frame upright. This gives me a 15 1/2" throat depth. I also set the dies at a 45-degree angle from the frame so I wouldn't be limited on how long a piece I could forge. My last decision had to do with activating the hammer. Should I use a treadle or a foot pedal? It seemed that a foot pedal would be the right choice for me. I like that I can move it to where I am in relation to the dies. Forging long pieces does not mean that I have to be in an awkward position and off balance. I have found that using a foot pedal assembly on the end of a hose is practical and comfortable.

Because I have a modest (5 hp, 12 cfm at 90 psi) air compressor the upper limit on ram weight was 75 to 80 pounds. With a 2" cylinder the hammer runs between 170 and 210 bpm (depending on actual line pressure). This speed met my design parameters and proved to be fast enough for everything I attempted with it. If I had gone to a 100-pound ram weight the cycle speed would have gone down significantly. The tradeoff here is speed vs. weight. In my view, it is more efficient to hit the object more often with a slightly lighter weight than to hit it harder but less often. A 100-pound ram assembly would require a 2 1/2" cylinder to run and would necessitate a larger air compressor (more cfm) to work properly.

With more than a year's use on my prototype hammer it has only failed to work once. As it turned out I had gotten some water (condensation) into the control valve. I took it apart, dried the pieces, re-assembled them, turned on the air and it has run well ever since.

I am very happy with my hammer. Controllability, speed, cleanness and lack of noise are all that I had hoped for. It proved an ideal addition to the cache in my shop. I completed a second hammer that is on its way to a new home in Texas and I've already been asked about making another. ~Bert Romans, POB 8991, Mulino, Oregon 97043
503 632-3615

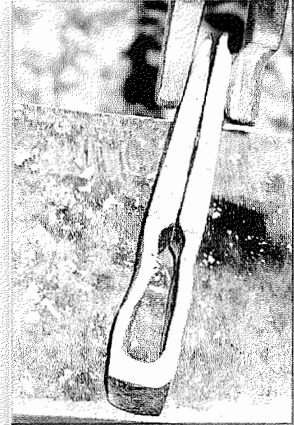
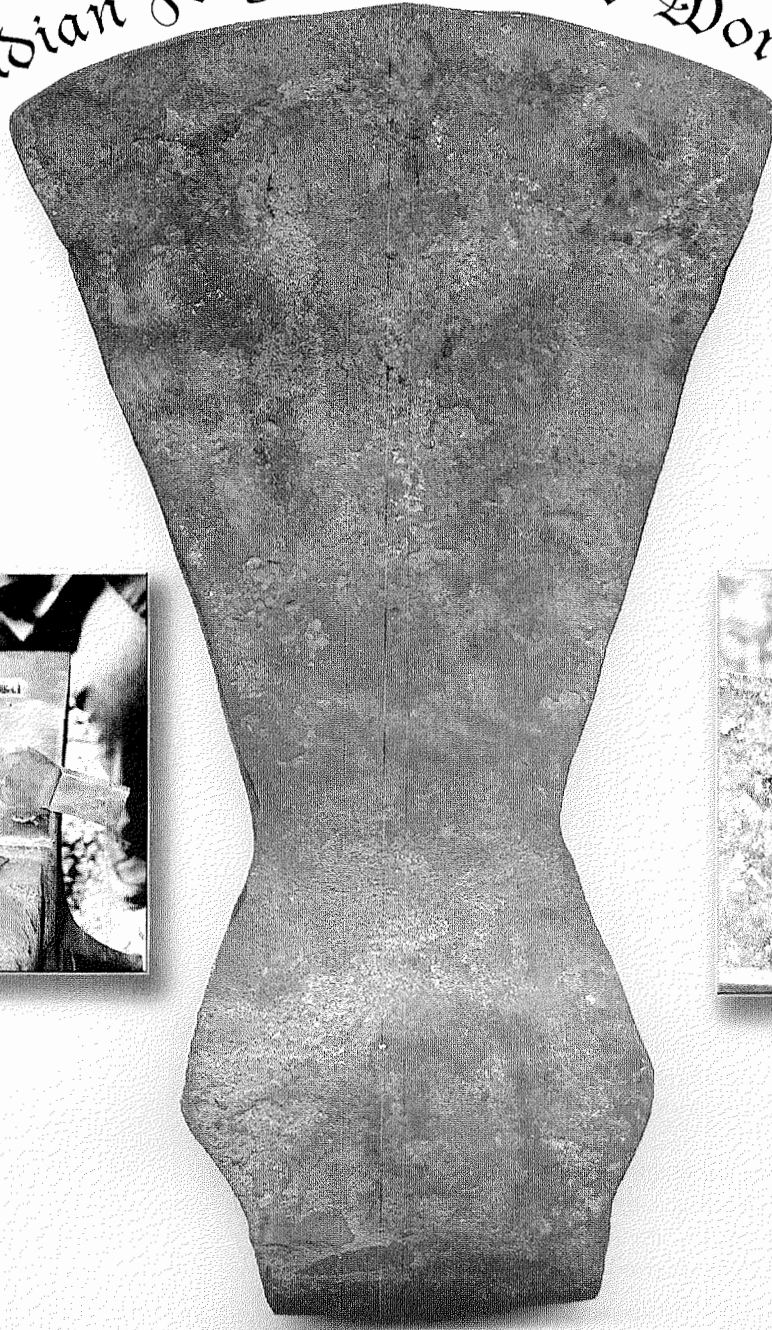


ABANA Board of Directors Meeting, Memphis, November, 2003



Don Kemper was elected President of ABANA at it's Board of Directors meeting at the Metal's Museum in Memphis, Tennessee, in November. Here, Don, a recent convert to Civil War Mania, inspects the battlefield at Brice's Crossroads, Mississippi, enroute to Memphis.

Meridian Forge Inaugural Workshop



Colonial Hatchet Workshop by Hardie Swage

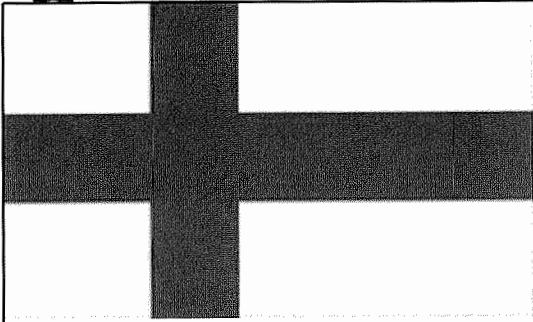
Jay Close, who was recruited by Peter Ross to take over the Fall hands-on workshops, took his class of ten through the process of creating a Colonial-era hatchet. The Hewett Hatchet is part of a gentlemen tool kit purchased from England in 1773 and housed in the Colonial Williamsburg collection. The class members transformed 3/8 X 1 bar and a little W-1 into axes with tool-steel cutting edges. A great time was had by all and goodly number of axes were produced.

The following weekend found Jay demonstrating at Fort Vancouver Historical Site. The Blacksmiths Guild asked Jay to duplicate items from their extensive artifact collection. This artifact-based blacksmithing is very much what Jay did his many years at the Williamsburg Blacksmith Shop working for Peter. Non-Guild members can attend, contact Dean Moxley for details.

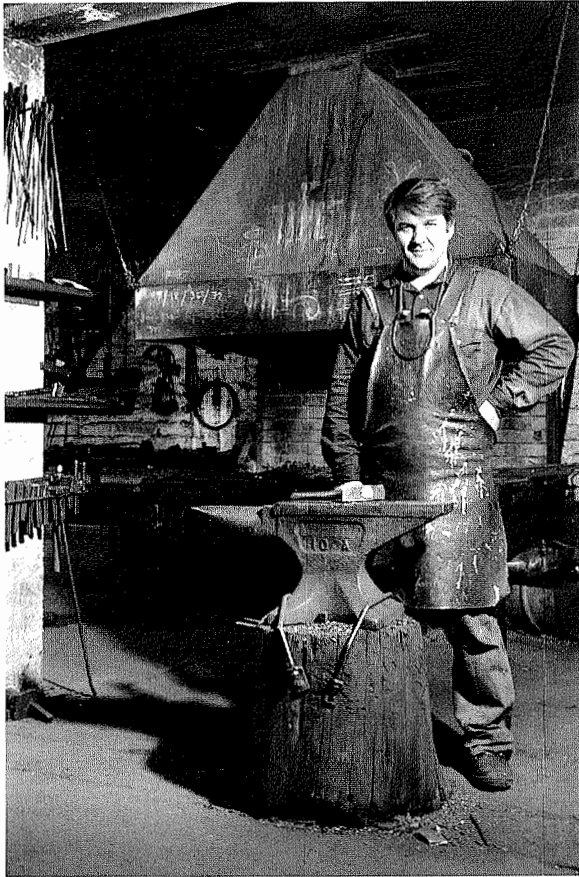
Meridian Forge is the creation of Darryl Nelson. He has housed a separate teaching facility just a little down the road from his production shop. There are forging stations for eight students plus one additional for the instructor. Extra anvils can be brought in to accommodate additional students. The forging stations have a shared gas forge (two students per forge) with individual anvils and leg vices. A number of tongs and other tooling from Grant Sarver Off Center Forge are also available for students use. Students bring their own hand tools, making the move in and out a very simple task. Classes run Friday through Sunday giving the students three full days of education. A student store is in the planning stages. We believe this is the first operation of its kind in the Northwest.

Darryl is planning about 12 workshops a year and you are encouraged to contact him at Meridian Forge, 37010 Meridian East, Eatonville, WA 98328 to get on his promotional mailing list. To get information relative to Jay Close 2004 workshop please contact Ike Bay at 503-645-2790 or dasbayhaus@worldnet.att.net.

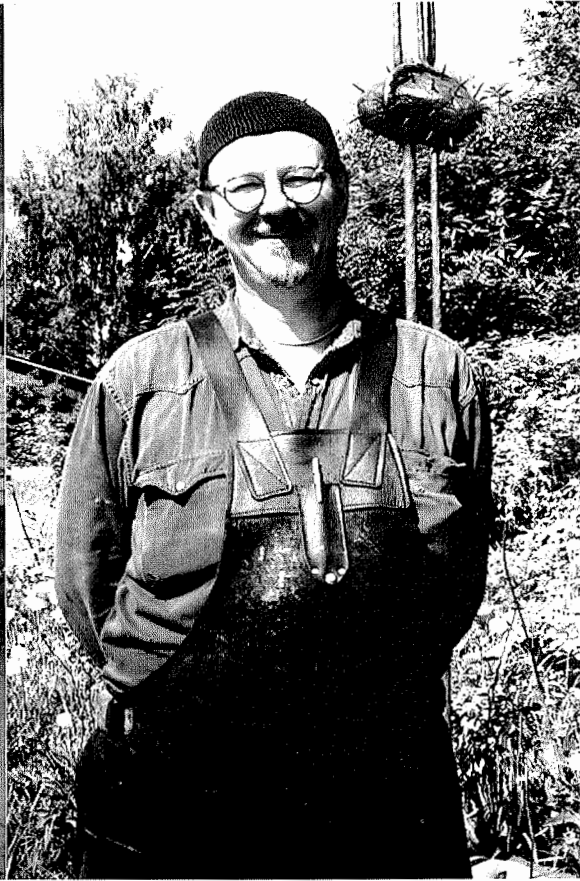




SUOMI SPRING

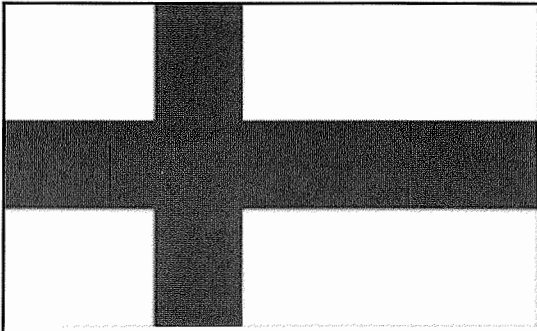


Jouko Nieminen



Jarmo Anttila

Two blacksmiths from Helsinki Finland will headline the Spring Conference at the Enumclaw Fairgrounds, May 28-30. Jouko and Jarmo, Arnon Kartmazof, David Tuthill, Jerry Culberson, and others, will have a full range of interesting demos.



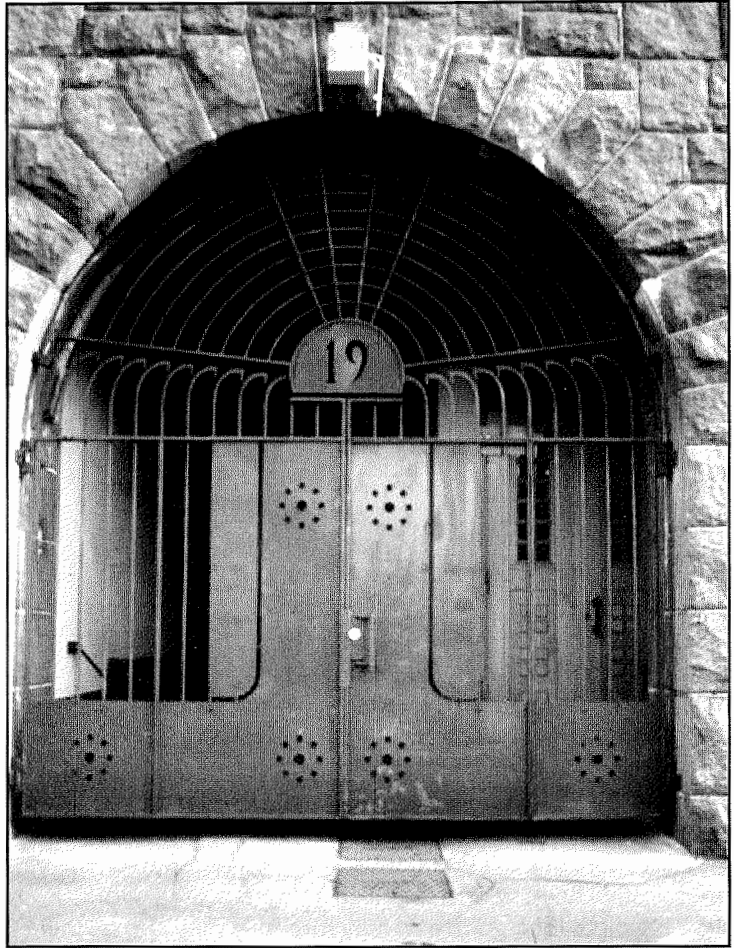
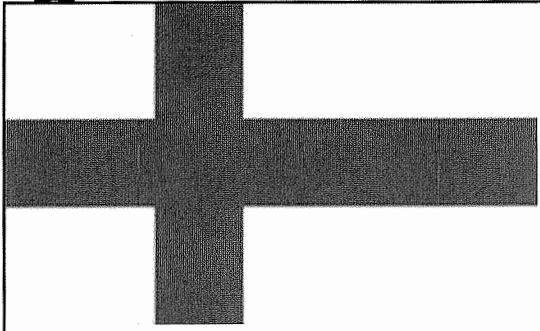
Jouko Nieminen

I graduated from Savonlinna Art and Craft School in 1983. After two years of woodworking and ceramics, I departed the school as a metalsmith. I then began to work in an old forge and in 1986 I received my journeyman diploma. I completed more studies at the University Of Industrial Arts of Helsinki for three years while working simultaneously. I started my own business in 1986. Jarmo Anttila joined me right at the beginning. We worked together until 1990. We took on one more partner in the company and we developed the biggest forge in Finland: the Iron Age Forge. In 2001 the company dissolved. I now run my own business but still share the workshop with Jarmo Anttila.

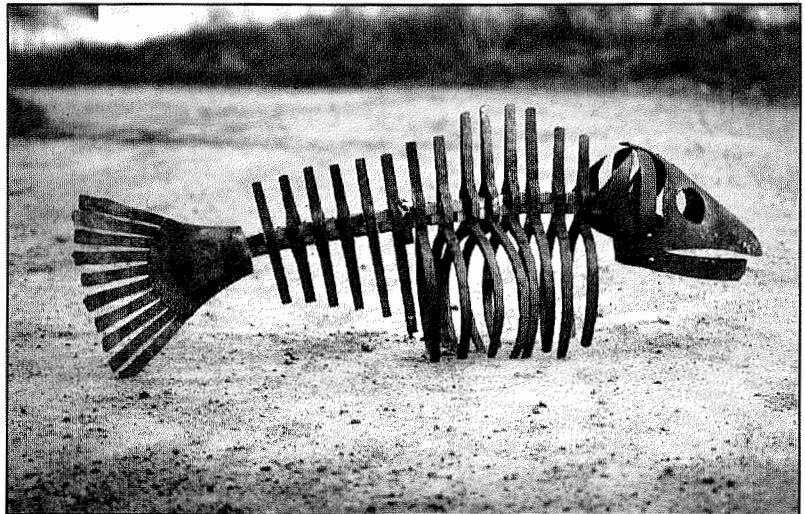
My work includes all kind of forge work from tools to sculptures. I don't think that there is any work that can't teach you something new. Even the work that many think is dull, teaches you to handle the routine, so when you are doing something more difficult you don't have to concentrate on the basics any more. The more I have mastered forging, the more economically I have started to utilize it. In decorative work, it provides very effective detail so that even a small detail can make a big piece look good and fully forged. It may also be that I'm a bit lazy. But anyway, the pieces I prefer, my best ones, are mostly based on one simple idea or technique. Surface treatments are also very interesting. I want to use different patinas, colours, rust, whatever. One person just told me that it's difficult to perceive that my pieces are made of steel or metal. That is just what I'm after: My idea is to make forged pieces which don't look like forged pieces!

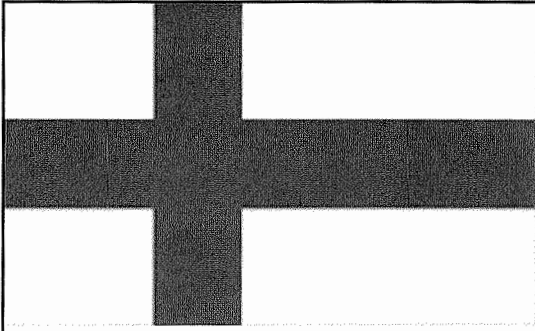
Jarmo Anttila

I once saw a picture of forged chessmen in an art book. At that moment I instantly knew what I would like to do in my life. The realization of my dream started in 1979 as an apprentice in the forge of the Master. I thought that I already knew something, but the Master made an ineradicable impact on me. That was the start of the endless journey to the world of knowledge, skills, tradition and forms. From the very beginning I have felt part of a continuum, a part of the blacksmith tradition which has lasted thousands of years from the primeval pictures of mythologies. Tubal Kain, Hefaistos and Ilmarinen, the blacksmith hero of Kalevala, the national epic of Finland, represent forces of matter and spirit and iron and fire in those worlds. The path of a blacksmith is a hard school of Mars, which demands a lot but also gives abundantly. In the same way as a lotus grows from the mud to the light, forged pieces can also grow from the darkness of a forge to glory. This is the challenge for blacksmiths!

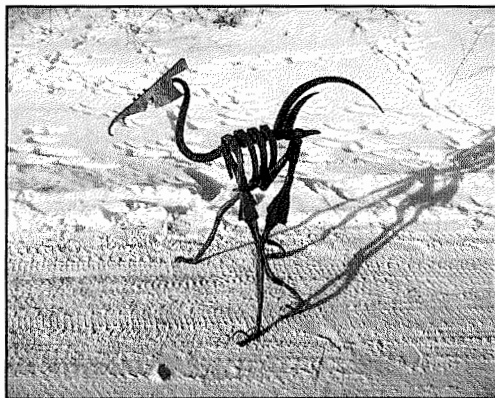


Jouko Nieminen on restoration project





"Scales" fountain



Saurobird



TRAVEL ADVISORY!



Sure, it's fun tripping around strange and exotic lands. But what about the food!?? The sad truth about Louie's overseas adventures is that his system just couldn't make the adjustment to new and strange customs and cuisines. The result? A really bad case of maggots! It took almost a month for the other smiths at Black Dog Forge to get him fully dewormed!

Four Good Reasons to Join ABANA!



Reason #1 is Rob Edwards (Back, Left), Editor of the *Anvil's Ring*. You get four great issues per year! See Gallery work and read great blacksmithing articles from the best! Reason #2 is Brian Gilbert, Editor of *The Hammer's Blow*. You get four great issues per year! Full of blacksmithing technique and tips. Reason #3 is LeeAnn Mitchell (Front, Left), who runs ABANA's Central Office and makes sure that you've got access to ABANA's great video library, scholarship applications, purchases of plans for tooling and forges, etc. Reason #4 is Michele Devine, who makes sure that your ABANA Conference experience at Richmond, Kentucky (And Seattle in 2006!) is the best! With an ABANA Membership you get plugged into the World Blacksmithing Community. You'll broaden your perspectives of the craft and get exposed to a lot of ideas, techniques, concepts and personalities that you wouldn't ordinarily come in contact with. It's the *intangible effect* on your view of blacksmithing and forging that is the most valuable! Go to the ABANA website at www.abana.org and check it out. Get an ABANA membership with the same spirit and motivation with which you'd get a new tool for your smithy--to better your abilities and perspectives in the craft! ABANA has about 5000 members and very few people ever quit once they've joined and started enjoying the benefits and enjoy being part of the world blacksmithing community! Membership is only \$45: ABANA, POB 816, Farmington, Georgia 30638--and you're set!



NWBA Spring 25th Anniversary Conference May 28-30 at the Enumclaw Fairgrounds.

Finnish demonstrators Jouko Nieminen and Jarmo Anttila; Portland's Arnon Kartmazof will demonstrate Japanese knifemaking technique, Jerry Culberson will do Hands-On, David Tuthill and more! Festivities start 9 a.m. Friday morning and go through Sunday noon. The King County Enumclaw Fairgrounds are located just South of Seattle off I-5.

Driving Directions: From the north, go south on Interstate 405 to the Maple Valley Highway (State Route 169), go south to Enumclaw, and follow the signs. From Interstate 5, take Highway 18 east to Auburn, and State Route 164 east to Enumclaw, and follow the signs. From the south, take State Route 167 and go east on State Route 410 to 284th Avenue SE.

Auction Item~ Now is the time to start thinking about a special auction project to help commemorate NWBA's 25th anniversary. Your NWBA dues cover the subscription to the Hot Iron News. NWBA depends upon conference income, especially the auction, to raise funds for other club projects e.g. scholarships, grants, equipment, etc. Conference organizers Alan Flashing and John Loeffler have been working hard to make the 25th memorable.

Fall Conference 2004 set for Alan Flashing's Forge, Oakland, Oregon, October 15-17, 2004. Alan Flashing and John Loeffler are organizers.

Northern Rockies Blacksmith Spring Conference, Bozeman, May 14-16, at Anvil Art Shop.

ABANA Conference, July 7-11, 2004, Richmond, Kentucky on the beautiful Bluegrass campus of Eastern Kentucky University! Mark your vacation planner now! Plan on spending time near Richmond to visit Daniel Boone's fort, historic homes, Civil War tours, Kentucky Artisan Center, Bybee Pottery, historic homes, the Shaker Village of Pleasant Hills, Mammoth Cave, Abraham Lincoln's Birthplace, Getz Museum of Whiskey History, lots of whiskey distilleries, and MORE! We'll be publishing names of all the great regional places to visit and restaurants (Hall's on the River at Boonesboro, has been a Kentucky tradition for 200 years. Start off with a Kentucky River Breeze, then order a Kentucky River Hot Brown--a blend of country ham, turkey and Hall's Kentucky cream gravy!) You might even have time to squeeze in some of the world-class forging events at the conference! Richmond is located just South of Lexington on I-75.

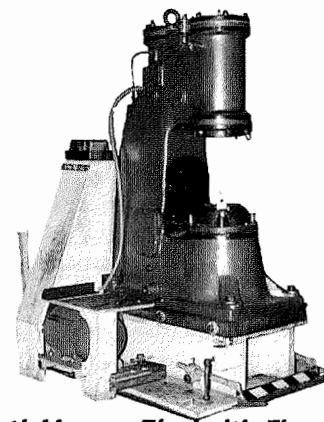
Free Entry Fee for ABANA Conference for an NWBA member if we can sign up ten new ABANA members! Presuming that we can do this, the award will be given out at the Spring Conference. Any NWBA member who isn't an ABANA member already should seriously consider membership in the national organization. You'll get EIGHT great blacksmithing magazines a year and a lot of other cool contacts and information!

Little Giant 250# Power Hammer, rebuilt with 200 r.p.m., 3-phase, 7 1/2 h.p. motor, all guards, brake, extra arms, spring, dies, etc. Mounted on wood pad bolted to 1" steel plate. Turn key installation! \$3500/offer. Also, Air-powered upsetter with pointing/taper hammer and extra dies. Don Kemper 360 887-3903.

Kemper Workshops: Basic/Novice, February 27-29 & March 19-21. Learn the basics. Tooling Up For Repousee Workshop with Brent Bailey & Jerry Henderson, April 23-25, Good intro course. \$200 each. Welding Workshop for Blacksmiths, April 3 Only, with Gideon Douglas, 20-year welder/instructor, mig, tig, etc. \$75. Contact Don Kemper for details. 360 887-3903, kemper @pacifier.com.

2004 Blacksmith Calendars, only \$12.50 postpaid, from Gill Fahrenwald, POB 2323, Olympia, WA 98507. Also, sets of 25 Blacksmith Postcards. These were produced with 60-100-year-old photos. One shows a 62-year-old blacksmith lifting a 155 lb. anvil with his ears (probably taken at an old NWBA Conference!) One shows a railroad blacksmith shop. These are great for the shop, home or mother-in-law. Bulk rates. You can pay via Paypal to anvilman@orcalink.com or send a check to Gill Fahrenwald, POB 2323, Olympia, WA 98507.

Forging Hammer. 88 lb. Self-Contained Pneumatic, Chinese-Built. Cast iron frame, single-piece. American motor, single-phase, 220 volt, 5 h.p., three sets of dies, flats, radius and sharp fuller. Die keys interchangeable on all three die sets. Custom steel and doug fir riser, 37-inch die height. Custom treadly lever and linkage/good single blow. Custom spring tool and fixture clamp. Die shelf and tool rack on belt guard. Tool tray out of operators work axis. **Used at Mt. Vernon Conference!** \$10,000 firm or partial trade for Beaudry or Bradley Hammer. Jorgen Harle, Orcas Island Forge, 360 376-5506.



Lost! Haynes Zirnhelt's Firepot! Bought at Fall Conference at Mt. Vernon. He left it in overnight parking area while watching demos. Probably got picked up while cleaning up after conference. Contact Haynes at hzirnhelt@hotmail.com or via the editor.

Christmas Henrob didn't fit? See Gary Gloyne for free exchange! 530 926-4418.



YANK

THE ARMY



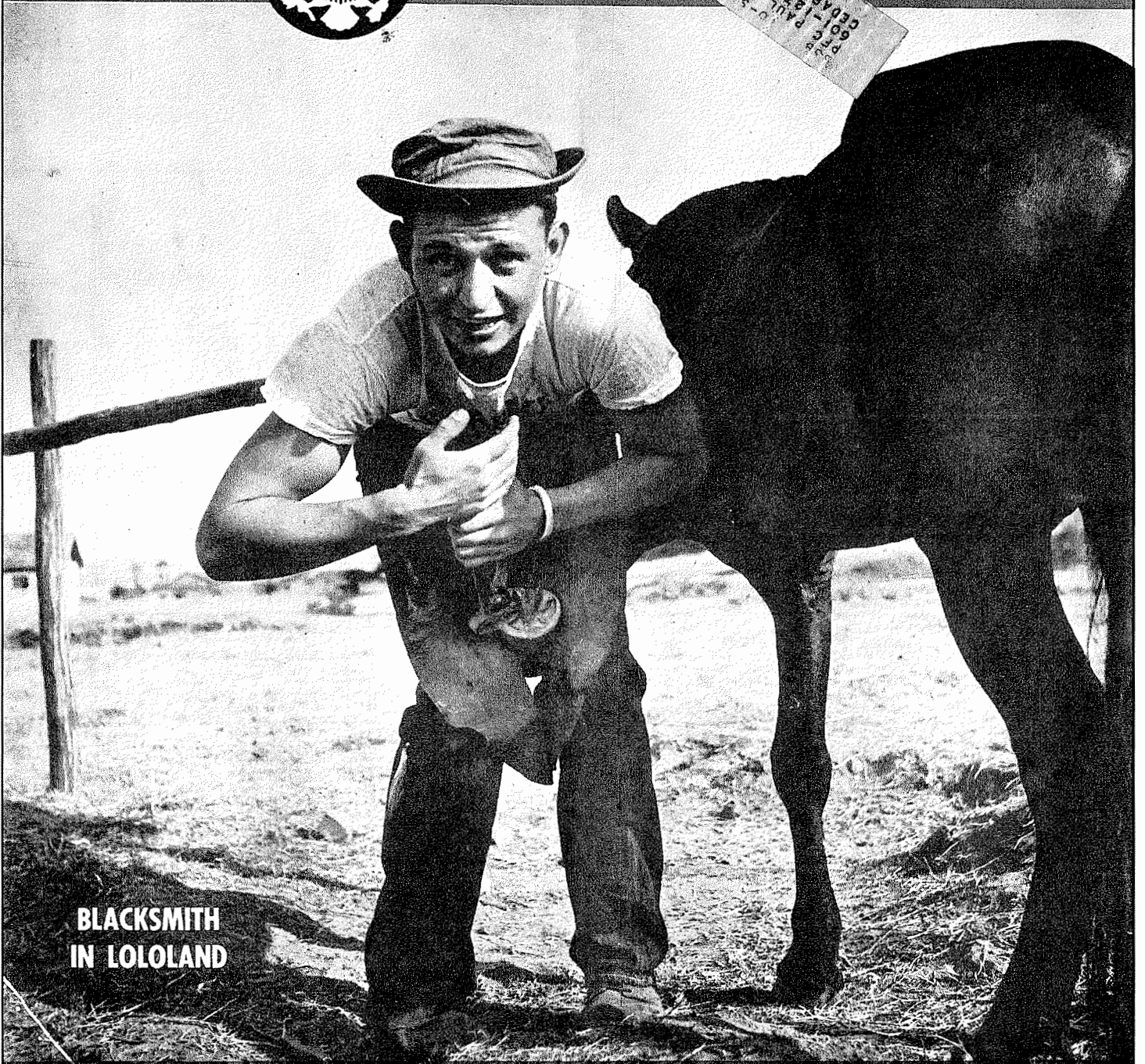
WEEKLY

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JULY 13
VOL. 4, NO. 4
1945

By the men . . . for the
men in the service

PAUL D. TURNER
1618 1/2 S. 10th St.
Portland, Ore.
C-5-2273



**BLACKSMITH
IN LOLOLAND**

Has the Army's Infantry Training Improved?

PAGES 16 & 17



Rare image of 19th-Century women blacksmith

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