

CHAPTER OF ABANA

# Hot Iron News

Voice of the Northwest Blacksmith Association

Fall 1996

\$4.00



**Ike Bay's  
Williamsburg style  
Blacksmith shop  
sits in a Portland,  
Oregon neighbor-  
hood.**

Story on pages 26-27

**Contemporary  
gate by Phil  
Baldwin separates  
Ike's garden and  
blacksmith shop.**





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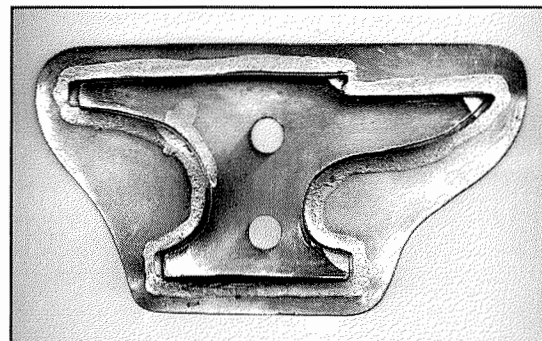
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**Anvil cookie cutter** made by **Rikki Scott**. See page 22 and 31 for more on Rikki and her tinware. Real blacksmiths make cookies and this is a must item for their kitchen.





## N.W.B.A. OFFICERS AND BOARD MEMBERS 1996

*Hot Iron News* is the official quarterly publication of the Northwest Blacksmith's Association. Submission of materials for the magazine is eagerly encouraged and may be sent to the editor, Gene Chapman. Dead-line for submissions are February 15, May 15, August 15 and November 1. Other ABANA Chapters, blacksmith associations, and non-profit educational metals oriented groups have permission to reprint non-copyrighted materials found within the covers of *Hot Iron News* as long as credit is given to the authors, the magazine and NWBA. The Northwest Blacksmith's Association, and the Hot Iron News disclaim any responsibility or liability for damages or injuries as a result of any construction, design, use, manufacture or other activity undertaken as a result of the use or application of information contained in any article in the *Hot Iron News*. The *Hot Iron News* makes every effort to insure the accuracy of the information contained the articles published herein, but the use of any material or information is solely at the user's own risk. The *Hot Iron News* assumes no responsibility or liability for the accuracy, fitness, proper design, safety or safe use of any information, technique, materials, tool design, use, etc., contained herein.

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# From the President

Ah, the heat of summer. How hard it is to find a match to start the forge on a 100 degree day. . . but creative juices stir and need to be expressed.

For many of our members it is a time to share "secret skills" at fairs, festivals and craft shows. A perfect opportunity to gain satisfaction from your work, grow (the instructor always gains more than the instructee), and learn that one out of every three people had a grandfather that was a "real blacksmith!"

If public demos aren't your cup of tea, those creative urges could produce an "ooh....ahh" exhibit at the fall conference gallery; an "over \$250 auction item" awards you with a free year's membership; or develops into a one hour demo/sharing period during the open forge/midnight madness at the next conference (a Board goal is to increase participation).

How does one loosen the bounds of creativity? So much has been written about the creative process, from doodling on paper or in iron, to formal life size drawings and scale models in iron. Just choose your own cup of tea !

Don Kemper

## N.W.B.A. BOARD MEETING July 13, 1996

The meeting was called to order by President, Don Kemper. All Board members were present except for Dennis Prince. Minutes of the January 13th meeting were approved.

We need to make up a donation receipt so that people who donate to the association have an official looking receipt. Gene will make up a sample and send it to the Board members for input or approval.

Kent will send Gene tax exempt information so that our postage rate can be adjusted for a cheaper rate. We are a 501 C(6) Board of Trade non-profit organization.

The Fall Conference will be at Russell Jaqua's shop in Port Townsend, WA. on October 4, 5, and 6. Due to the cost of catering and the amount of effort that goes into a pot luck and BBQ, it was decided that a group of volunteers will get dinner in the form of Safeway, ham, chicken, platters, etc. for the Saturday night meal. We are hoping to get more participation in the Midnight Madness.

The Spring '97 Conference date has been changed so that it will not conflict with the Oregon Knife

Collectors Show in Eugene, OR. It has been changed to the last weekend in April. The Spring Conference will be held in Oregon, possibly at Dave Thompson's shop in Eugene. Berkley Tack will be the local demonstrator and possibly 1 or 2 demonstrators from out of the country.

It looks as though the trailer that Dennis got may not be long enough to accomplish what we want.

At the Fall Conference elections will be held and Dennis, Don, Barney, Tom Richards, Bob Race and Al Karg are the candidates for elections.

Currently we are averaging 400-450 paid up members.

Starting at the Fall Conference, the editor and treasurer will submit financial reports for an annual audit.

The next Board meeting will be at the Fall Conference in Port Townsend.

Respectfully Submitted  
Your Scribe,

Dennis Prince

P.S. Thanks to Matthew Tilton for hosting this meeting.



# TIDBITS

**New Area Codes** for Oregon, **541** and Washington, **360**. Send any changes in to the **Hot Iron News** editor. More area codes are forthcoming in the 206 area, yippee!

## New Members

Derald Helt, Loon Lake, WA  
 Phil Dirks, Lake Havaso, AZ  
 Rod Peterson, Mt Vernon, WA  
 Ray James, Seattle, WA  
 Mark Drain, Shelton, WA  
 Sherry Kinerk, Kent, WA  
 Mark Burnside, Seattle, WA  
 Larry Johnson, Raymond, WA  
 Sidney Jenkins, Rockport, WA  
 Jon Scott, Victor, MT  
 Don Mc Donald, Vancouver, WA  
 Tom Towers, Tacoma, WA  
 Eric Ziner, Deer Isle, ME  
 Tim Kaufman, Clarkston, WA  
 Denise Salo, Seattle, WA  
 John Cunningham, Edmonds, WA  
 Cook Construction, Suisun, Ca  
 Keith Foster, San Leandro, CA  
 Barney Warren, Boise, ID  
 Jack Butz, Tillamook, OR  
 R Hammers, Bremerton, WA  
 Ken Mills, Crabtree, OR  
 John Johnson, Bend, OR

## \$\$\$ Auction dollars \$\$\$

Any donated item that sells for \$250, or over, in the auction gets the doner a free, one year N.W.B.A. membership.

## Wanted

### Blacksmith Shop tours

The **Hot Iron News** will feature N.W.B.A. member's shops with photos and stories. Send your shop history, something about yourself, drawings and photos to the **Hot Iron News** editors.

**Donation Slips** for your friendly IRS are available from board members when you donate to the N.W.B.A. cause.

Last issue reported the new **Kootenay Blacksmith Assoc.** in Crawford Bay B.C., Canada. Here are the officials.

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**OOps**, last issue had a ring roll on page 38. We left out the credit for it's origin. It was originally published in the California Blacksmith Assoc. newsletter. There are 51 chapters of A.B.A.N.A. and most have and exchange newsletters with other chapters. It is a unique system in that most material isn't copyrighted and may be used as long as credit is given where credit is due. The **Hot Iron News** frequently has other newsletter articles, drawings and sometimes photos.

**N.W.B.A.** grant information is in the Resource Handbook. Just run off a copy and apply if you need assistance for a workshop or blacksmith related event. There is a \$250 maximum per person each year. The grant fund is currently \$1,000 per year. There are a few strings attached though. Grant recipients are required to write an article for the **Hot Iron News** about the event they attended and are requested to demo some of what they learned, however the demo isn't mandatory.



# Letters to the Editor

Dear N.W.B.A.

We recently received a copy of N.W.B.A. Resource Handbook in the mail. As I was reading through your publication I found on page 12 an application for the Al Bart Memorial Grant. I was thrilled to see this and I know my father, Al Bart, would be very pleased. He took great delight in sharing his blacksmith knowledge and wisdom. Even though our family is still coping with our grief since my dad's death, we are very comforted to know that he was so well liked and respected by the blacksmith community. We are still receiving cards and letters expressing these sentiments. Thank you for developing the Al Bart Memorial Grant.

Sincerely,

Pam Bart Clapson

## The Breakers, Newport, R.I.



The large iron gates guard entrances to The Breakers, a National Historic Landmark, built in 1895 for Cornelius Vanderbilt in Newport, RI. Peg and I toured this huge "summer home" after the A.B.A.N.A. conference. The interior had some beautiful wrought iron work, but unfortunately photographs were not allowed inside the mansion. Two pairs of gates, entrance and exit are on the massive grounds.

## Joe Humble Award

Peg and I proudly announce that the **Hot Iron News** Editors, that's us, were selected to receive the Joe Humble Award at the awards ceremonies during the A.B.A.N.A. conference at Alfred, New York. This means that our N.W.B.A. newsletter is the best in the country!! Did we have any doubt?? Humble??? A.B.A.N.A. came up with this award in memory of Joe Humble who was editor of the Appalachian area newsletter for many years. The award has been a forged quill in the past. Jim McCarty of the Blacksmith Association of Missouri was the 1995 recipient and forged the quill on our plaque. I am to forge a quill and Peg will do some carving for next year's winner. Jim forged such a wonderful quill it will be a tough act to follow. Winners of the Joe Humble Award are voted by newsletter chapter editors. Many thanks to all N.W.B.A. members and A.B.A.N.A. chapter newsletters for their articles, drawings and photos that we use in the **Hot Iron News**. Without your help our newsletter wouldn't be the award winning publication is it!



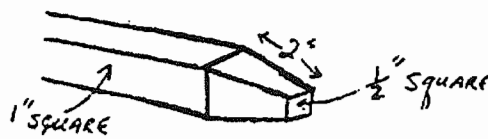
### FORGING A HORSE HEAD

by  
Jim Fleming

(From the Newsletter of the Blacksmiths' Guild Of The Potomac)

STOCK: 1 inch square bar

1) Draw Down the nose.



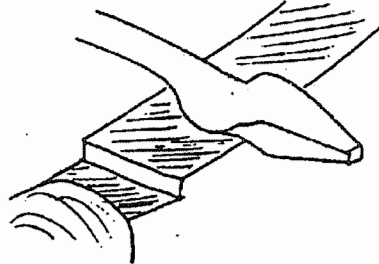
2) Break the corners.



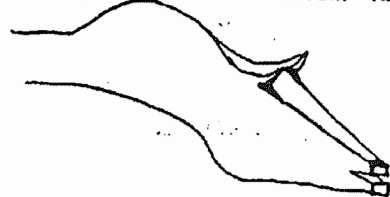
3) Define the jaw over the edge of the anvil.



4) On top the anvil, raise the mane with the ballpein and thin the neck in width.



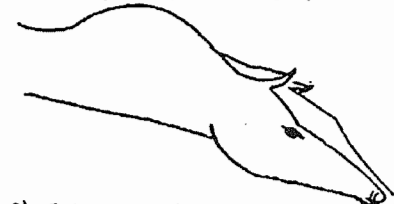
5) Open ears and mark mouth with chisel.



6) Punch the nostrils with center punch.



7) Punch the eyes with eye punch.



8) Pein and fold mane over onto neck.



9) Bend neck using hardy hole, leaving the head looking toward one side with neck slightly twisted.



REPRINTED FROM THE NEWSLETTER OF THE  
BLACKSMITHS' GUILD OF THE POTOMAC



## Animal Head Workshop



### Instructor: Darryl Nelson

Location Earth-Wind-Fire & Ice Forge Works  
aka "The Olde Smithy"  
(Don Kemper's Place)  
Date: November 1-3 (Fri, Sat, Sun) 1996  
Contact Don Kemper  
20100 NW 61st Ave.  
Ridgefield, WA 98642  
360-887-3903

**Darryl's** talent and experience at the forge are well known by long term members of the N.W.B.A. and A.B.A.N.A. Examples of his work (including animal heads) are utilized at Silcox Hut and Timberline Lodge on Mt. Hood, in Skamania Lodge in the Columbia Gorge, in the New Cannon Beach Art Association Gallery and The Haines Bakerie on the Oregon coast. He has freely shared his skills at numerous national workshops.

**Demonstrations** will alternate with hands-on student practice. Tools and sample pieces will accompany student notes home for future reference.

The workshop will accommodate **12 students**. Students will furnish own hand tools and portable anvil. Please leave your 400# treasured anvil at home. Iron and some tool steel will be furnished, as will coffee, juice, rolls and a smile. **Note:** students may bring additional tool steel ( 5/8" round or hex, nominal for tooling).

This workshop was announced at the spring conference and is rapidly filling. Darryl has agreed to have a **second** workshop if the need arises.

## Novice, Novice II and Novice III workshops

No dates as yet, we are taking names and when there is enough interest a date will be set.

Contact Jerry Culberson 360-275-6769 or Gene Chapman 360-297-2495 to get on a list. A sign up sheet will be at the registration desk at the fall conference.

## More Tidbits

Thanks to **Lauren Osmolski** for provided that delicious marinated chicken and pork steaks, potato and green salad for the hungry N.W.B.A. board members after the meeting at Matthew Tilton's subterranean blacksmith shop in Seattle. After adjourning we climbed to the roof and had a wonderful meal along with a view of Elliott Bay, Smith Tower, and many of the local residents of the Pioneer Square area.

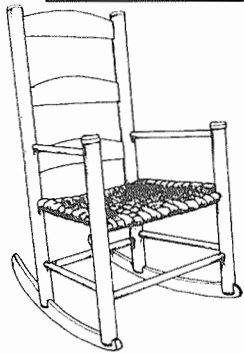
**Norm Larson**, the book man is planning to attend the fall conference in Port Townsend. This is a real bonus. Norm has the most extensive collection of blacksmith, forging, knife, casting, tinware, and metal associated books in the universe. Get there early to browse and buy.

**N.W.B.A. Library.** Two new videos, Nahum Hersom and Jerry Culberson forging and repousse work on the joint conference project at Dave and Babe Brandon's and Jerry Culberson, himself, forging a pair of Poz and box jaw tongs. Don't miss these two masters of metal. These tapes were made by Jerry Kagele from Spokane, Washington and are available from our library.

## Future of the Hot Iron News

The present goal is to have the **Hot Iron News** format with 28 to 40 pages for the Spring, Summer, Fall issues and a "double issue", the biggie, for the Winter issue. This issue is not to exceed 64 pages, the limit for best value under current third class mailing regulations. We are trying to put as much on each page without it being crowded, yet make it interesting. Peg and I are continually learning in this new experience of publishing. It's been a pleasurable journey so far. What is most phenomenal is the response we get from N.W.B.A. members with articles, photos and drawings. Thanks so much. Your comments are welcome. Ed

P.S. The greatest **invention** in the last 20 years is spell checker, although as you can read, it's not always used. May the forge be with you.



# ARMCHAIR BLACKSMITHING

Audel Book Co. had a series of craft/trade books copyright 1942, plumbing, electrical, carpentry etc. Though not in print now, these are still found in used book stores. This book cost \$4.50 about 6 years ago. It covers aircraft sheet metal work, pattern cutting, layout, duct work, sheet metal machines, welding sheet metal and boiler plate work, practical drawing, how to read plans, geometrical problems and mensuration, all in all a very handy book.

# AUDELS SHEET METAL WORKERS HANDY BOOK

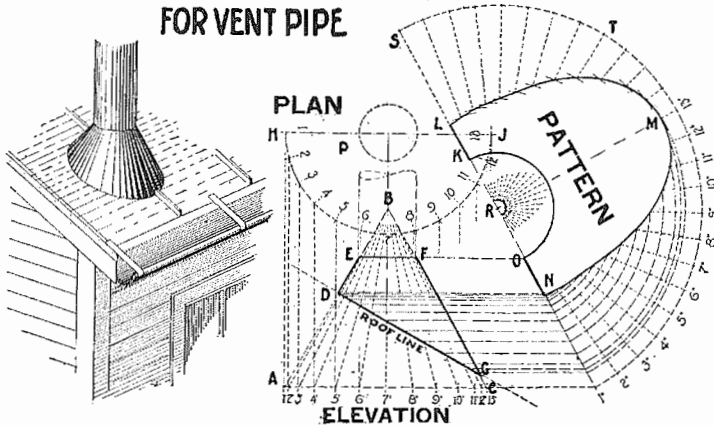
for

## PATTERN LAYOUT MEN

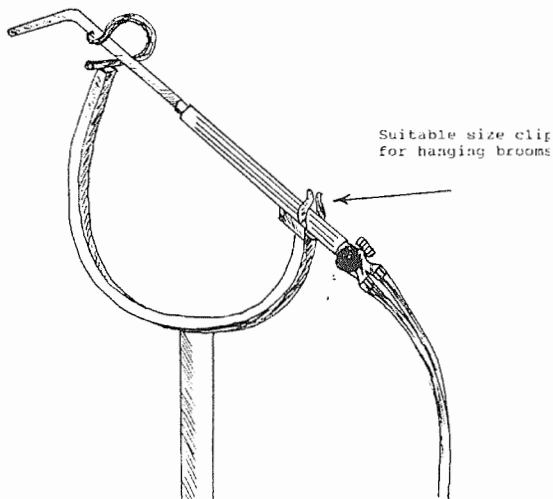
BY  
FRANK D. GRAHAM  
AND  
EDWIN P. ANDERSON

**THEO. AUDEL & CO., PUBLISHERS**  
49 West 23rd Street, New York

### CONICAL ROOF CONNECTION FOR VENT PIPE



Figs. 9,591 to 9,594.—Problem 29. Conical roof hood or base connecting with stack and development of its pattern.

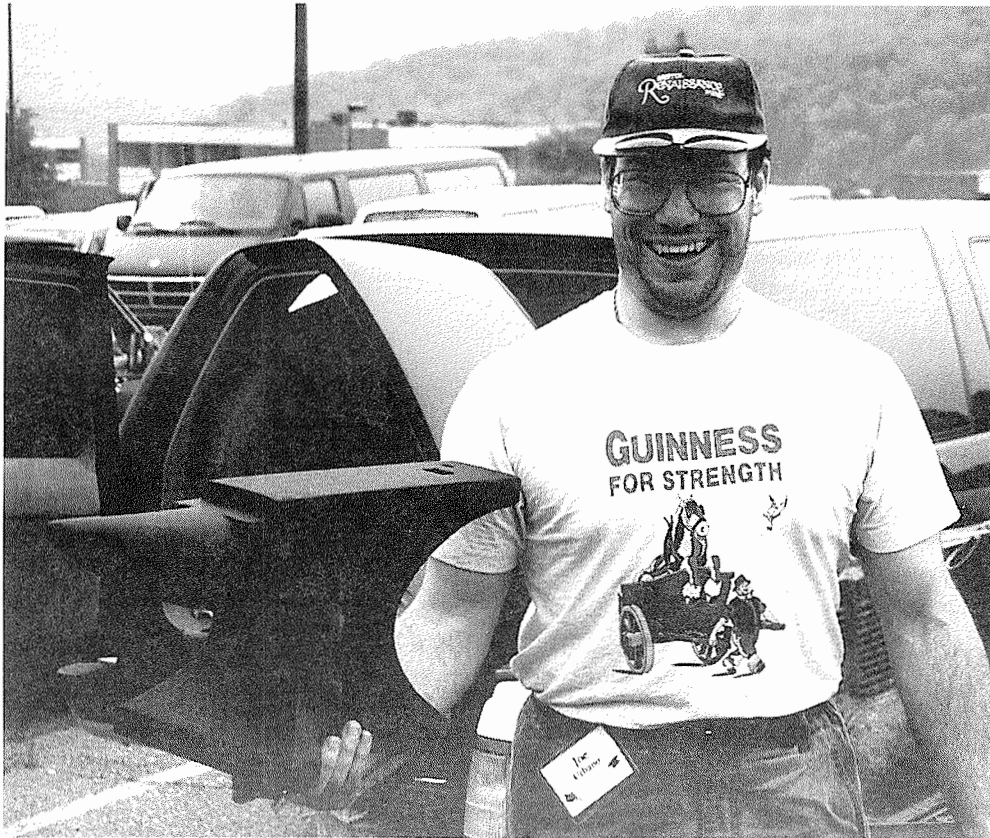


### Torch Holder

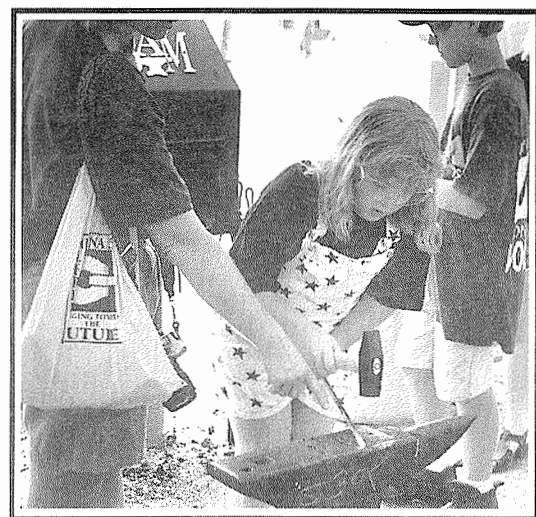
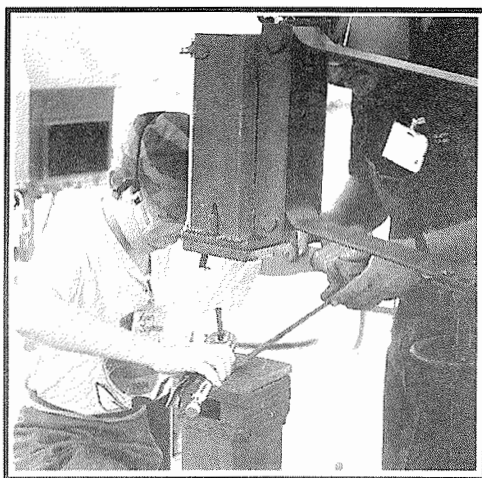
by Roy Plumlee  
reprinted from the Illinois Valley Blacksmith Association Newsletter

Here is a piece of equipment I use in the shop that works well for me. It allows me to grab the lighted torch and I don't have to balance it on a piece of junk. I bought metal broom handle clips that were designed to be mounted on a wall. Several sizes are available.

## A.B.A.N.A. 96 "Forging Toward The Future"



Joseph Urbano, an Upper Midwest Blacksmith Association member, shows off during the anvil lifting Olympic competition during the Alfred Conference. A similar picture of Joe was on the front cover of their newsletter, **The Journal**. Real photogenic isn't he?



The Blacksmith Association of Missouri provided forges for the hands-on learning area. Many folks, kids included, tried their hand on hot iron projects. These two were intense and obviously enjoying the hot iron craft. Note the safety glasses.

# A.B.A.N.A. 96 "Forging Toward The Future"

Kagele's On-The-Scene A.B.A.N.A. Report

The Elvis-of-Iron took me by complete surprise! Here I was, five minutes into my first A.B.A.N.A. conference and I found myself face-to-face with CLIFTON RALPH, the star of the power-hammer-video-from hell that runs to eternity! Same hard hat, same foghorn voice, same cigs. A classic! I had to think of that heart-rendering moment in Reel 15 of the video where Clifton gets himself all choked up and starts crying. But now he was in good spirits and getting set to power-hammer out an anvil for the crowd.

This was part of the fun of A.B.A.N.A., seeing all the blacksmith greats in their element, beating the hell out of their life's-blood medium.

Then there was FRANCIS WHITTAKER, the Metal Moses who received the Ten Blacksmith Commandments directly from Samuel Yellin himself and who led the Abanites to the Promised Land. Francis celebrated his 80-something birthday at the conference and the Friday night auction crowd sang to him. But I have to admit that while Francis' appearance was



awe-inspiring (in the same way as seeing Queen Elizabeth or the Pope) seeing Clifton was more like seeing Lady Di or Elvis -- a pop icon.

The opening ceremony remarks by conference chairman Charlie Orlando were among the best oratory that I have ever heard. He challenged the blacksmith craft to increase societal involvement. He urged that this be done by out-



Francis Whittaker and Eric Ziner

reach to youth, minorities and different ethnic groups, and by more involvement in socially conscious projects such as supplying crosses, hinges and other ironwork to fire-bombed black churches. This set the tone for the conference theme, "Forging Toward the Future", which urges greater public awareness of the craft.

With eight to ten demonstrations going simultaneously, it was real easy to go into sensory overload. I decided to follow Willem Jonkers, a sixth generation artist-blacksmith from the Netherlands. He demonstrated European armor making and crafted a 16th-Century German helmet. He had recently finished some gold-covered gates for the Royal Palace in Holland. His European technique was as smooth as silk. It was particularly interesting to watch him forge-weld the helmet parts together without flux. This is a world-class smith!

N.W.B.A. was well represented by Dave Thompson who demonstrated the forging of square tubing. He also demonstrated the Clayton Clamp, which is one of those obviously-simple joinery techniques that everyone wishes they would have thought of first.

One of the most original demonstrators was Charles Lewton Brain, of Calgary, a master goldsmith who demonstrated "fold forming." This is a series of techniques new to metalsmithing which allows the rapid creation of three-dimensional surfaces and structures. It is a simple folding technique which has a lot of cross-application potential for blacksmiths.

To commemorate the 100th anniversary of Little Giant, Sid Suedmeier of Nebraska City, Nebraska, who now carries on the Little Giant tradition and business, raffled a 25-pound hammer with the proceeds going to A.B.A.N.A. During the course of the conference, Sid demonstrated the rebuilding of the hammer. Sid did a great job of explaining the intricacies of a Little Giant and must have answered several thousand questions. Except for the A.B.A.N.A. staff, I don't think anybody worked harder during the conference than Sid, his wife and son, dispensing Little Giant information and parts. His contribution of the hammer also raised a lot of money for A.B.A.N.A. Sid and his Little Giant business



## A.B.A.N.A. 96 "Forging Toward The Future"



Grinning in Alfred

N.W.B.A. members from the Pacific Northwest (mostly) who got together for a group photo at Alfred and Rebecca Thompson and daughter Ellis, Jerry Kagele, Laticia Kagele, Eric Ziner (that's his Dad, Zeke Ziner, to the left of Eric), Dave and Babe Brandon, Lauren Osmolski, Matthew Tilton, Grant and Hwa Sarver, Gene and Peg Chapman, not pictured are Alice James and Japh Howard, Martin and Maizie Reinhard, Dave and Eleanor Brand. If I've missed anyone, give me a call and give me what for. Ed

are pure class.

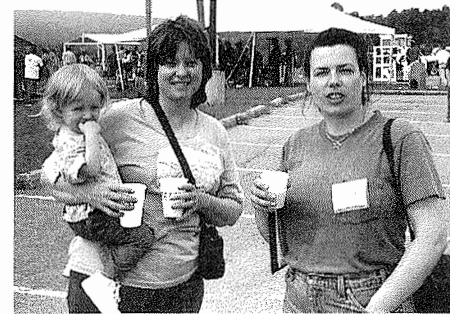
All the boys back in the Rust Belt learned that the cutting edge of blacksmith high-tech comes from the Pacific Northwest when Grant Sarver unveiled his two Kick-Ass hammers. Grant's hammers were used by a number of demonstrators and were easily the best new technological innovation demonstrated. Likewise, his tongs were light years ahead of everyone else's designs. Grant's wife, Hwa, and their kids, ran the conference booth while Grant was explaining the joys of his product.

It was also impressive that nearly twenty N.W.B.A.-related attendees showed up in Alfred. As a first-time attendee, I was impressed by the quality and diversity of the demonstrations, everything from damascus to ornate Jewelry. A Jewelry casket made by Tom Latane, Pete Renzetti, and a group of other smiths, during the conference, sold for more than \$6,000.00 at the auction.

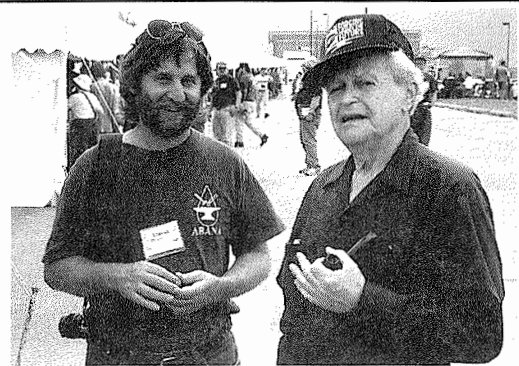
The conference also confirmed what we in N.W.B.A. already knew: that the **Hot Iron News** is the best regional newsletter! Gene and Peg Chapman walked off with the Gold medal! (The Joe Humble Award) Mega congratulations for all their hard, creative work!!!

About the only downside to the conference was the Friday night auction. It needlessly ran into the wee hours and the auctioneer was boring and used a lot of tasteless remarks. This was a major downer which the A.B.A.N.A. Board needs to fix.

The next conference is in two years in Asheville, North Carolina. I have already started saving my Frequent Flyer miles.



Rebecca Thompson, daughter Ellis and Lauren Osmolske

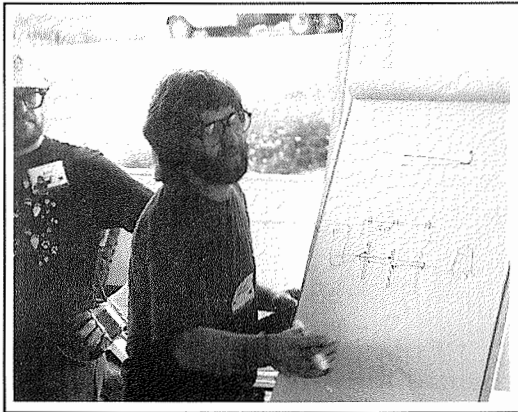


Dave Thompson and Zeke Ziner, Zeke is a renowned metal sculpturer.



Alice James looking over the acres of tailgate tools.

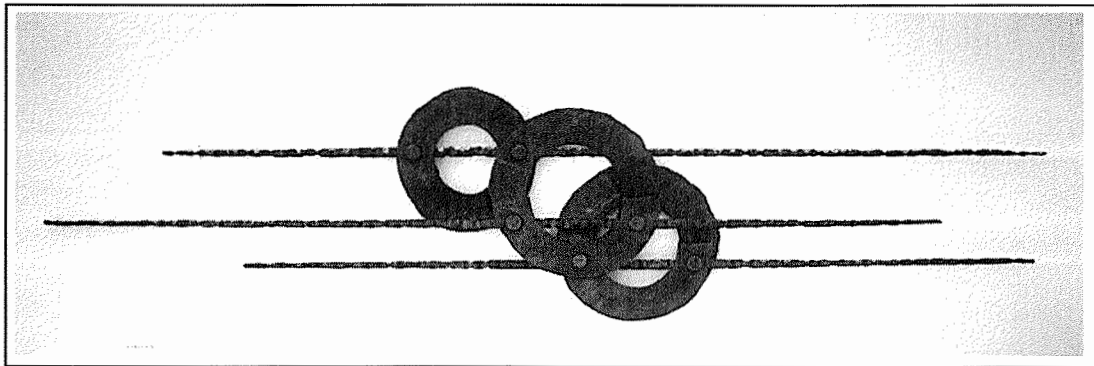
# A.B.A.N.A. 96 "Forging Toward The Future"



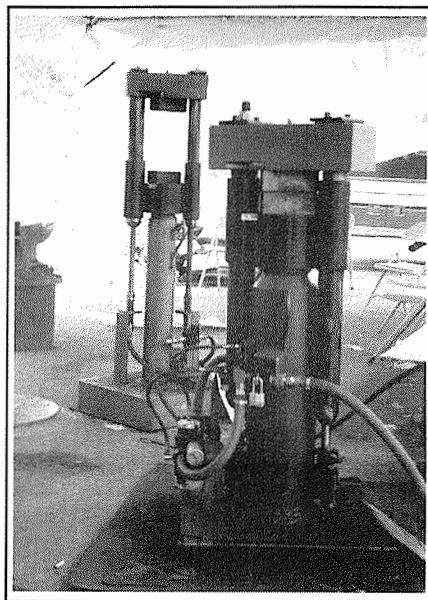
Dave Thompson demonstrates at Alfred with Eric Ziner giving assistance, when needed.



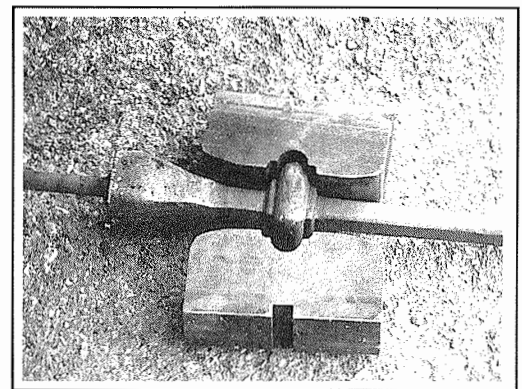
Martin and Maizie Reinhard were looking over the many tables of books in the gym just before this photo was taken.



Dave's sculpture titled "Three Moons" was on exhibit in the Gallery



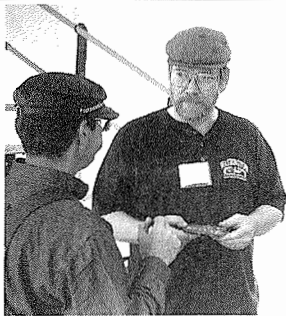
Kick Ass hammers, 75# and 150# were used in one demo station by various demonstrators. Grant enjoys all this free advertising.



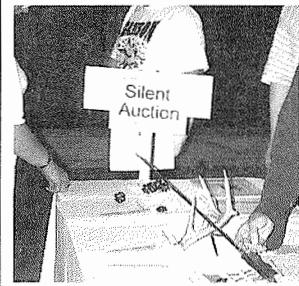
These nifty dies were used on one of the Kick Ass hammers to make this forged piece.



# A.B.A.N.A. 96 "Forging Toward The Future"



Grant was unusually busy, promoting his tongs and hammers during A.B.A.N.A. '96. Many a handful of his tongs were being carried around by shoppers in the tailgate area testifying to the popularity of his handiwork.



The silent auction was a popular event and raised considerable gold. Perhaps we could try several items at an N.W.B.A. conference, just to test the ice?

Tailgaters galore, about a block long, had everything from power hammers, books, file handles, old, old prehistory anvils, new anvils, odds and ends. Just bring money and you could have it all.



Sid Suememier of Little Giant fame had most parts for new and old Little Giant hammers.

## A.B.A.N.A. '96 "Forging Toward The Future"

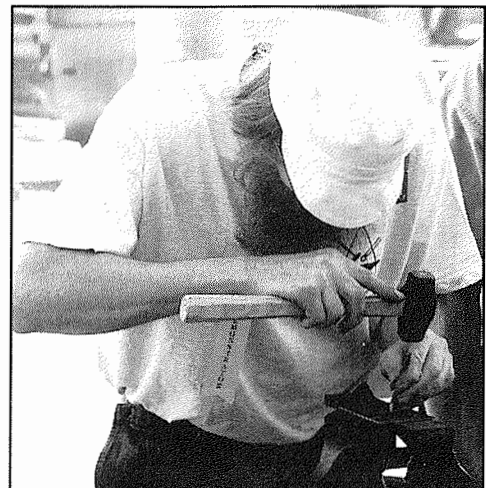
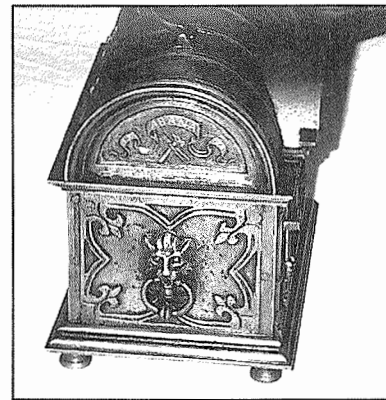


This magnificent jewelry box forged, engraved, repousse and silver inlaid by Tom Latine, Peter Renzetti, Carl Close, Paul Spalding and Andrew McDonald brought over \$6000 at the auction. This museum quality piece was several years in the making.



There was always a crowd at the demo area where the jewelry box was being worked on. These demonstrators were patient and took time out to answer questions and explain what they were doing.

Tom Latine at work on the jewelry box.





# What's Happening or Happened

## September 26 and November 21

The Pratt Fine Arts Center Seattle Course work includes: Folded forged and inflated forms, fused mosaic steel, hollow and solid pressed forgings, pattern welded steel without flux and a variety of fundamentals geared toward individual needs. For more information call Pratt at 328-2200 or Steve Shaddock at 206-768-1164

## October 4-6

N.W.B.A. Fall Conference  
Nimba Forge, Russ Jaqua's new shop in Pt Townsend, WA

## October 25-27

Peter Ross Workshop, originally scheduled earlier and moved to this date. The coordinators are taking alternates for this workshop in case someone can't make it. Call Bob Race 503-253-7334 or Ike Bay 503-645-2790

## November 1-3

Animal Head Workshop  
Instructor: Darryl Nelson  
Host: Don Kemper, Ridgefield, WA, Contact Don Kemper, 360-887-3903

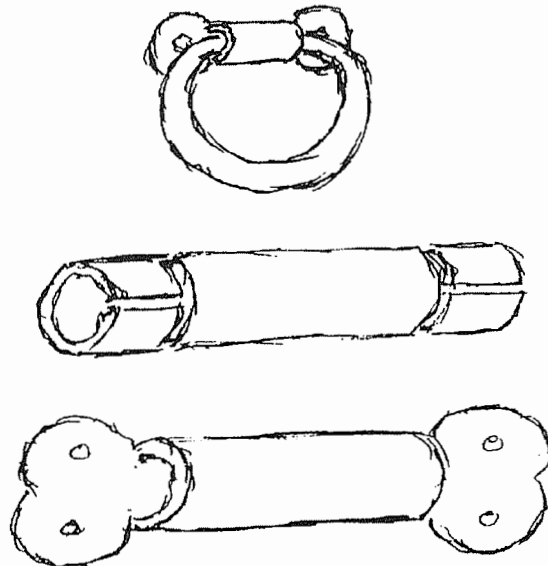
## A.B.A.N.A.'s First Official Winter Mini-Conference

The conference will be held in Phoenix, Arizona with demonstrations at the Phoenix Forge. Meals and lodging will be at the Downtown Ramada Inn directly across from the demonstration site. Four days of demonstrations by Dorothy Stiegler, Jerry Hoffman, Dmitri Gerakaris, Lou Mueller, and Corky Storer, a reception and Gallery are the highlights.

Registration is \$150. The lodging package is \$191.50 per person, double occupancy which includes four nights lodging, four breakfasts buffets and a banquet dinner. To register or for more information contact: Bill Callaway or Bob Rummage at the Phoenix Forge at 602-253-3316 or Mike Cooper at 602-938-1495

## Drawer Pull by Noel

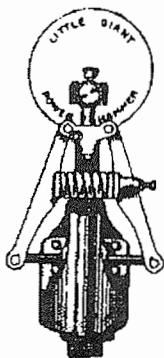
Reprinted from the Furnace Town Blacksmith Guild Newsletter



Cut pipe 2/3 the way through.

Noel demonstrated a drawer pull incorporating pipe as the basis for the barrel to accept the swinging handle. Noel first forged the handle ring to shape leaving the ends free. Then a section of pipe, the appropriate size for the handle, was selected and cut thusly. Flatten ends and shape with cross peen and file to desired shape. Punch or drill holes. Heat ring, spread ends, insert into barrel, squeeze together.

## January 9-12, 1997



Rebuilt & Used Little Giant-Mayer Bros. Power Hammers and Replacement Parts.

## Little Giant/Mayer Bros.

Harlan "Sid" Suedmeier  
420 4th Corso  
Nebraska City, NE 68410

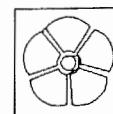
Days (402) 873-6603

Little Giant need parts? Give Sid a call. He had a table full of springs, dies, clutches, toggle arms, etc. at the Alfred conference.

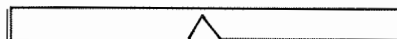
*The Florida Clinker Breaker*, April, 1990

# Jig for Three-Legged Bases

Steve Bloom

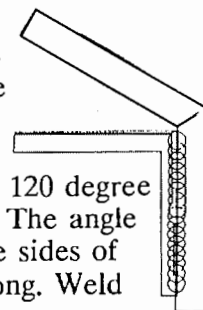


If you need to make several bases or (like me) have some problems with getting the angles right, this jig might help. In successive write-ups, I'll describe a shaping jig for the arcs of the legs & two projects, (a simplified courting candle-stick & an elaborate copper & basket-work combination).



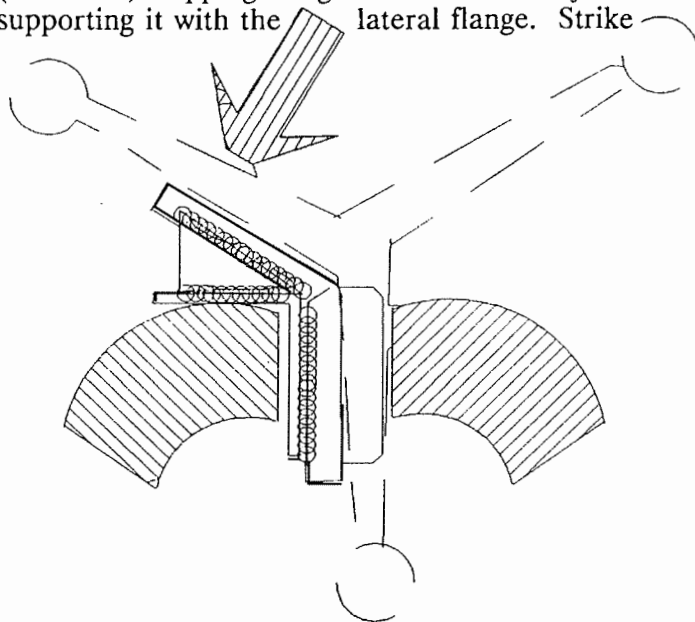
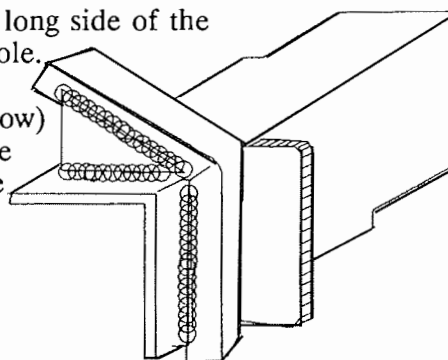
A. Start with 6" of 1/2" square stock and hacksaw a 60 degree notch 2/3 of the way through.

B. Bend the stock as shown (giving a 120 degree arc) & weld to a piece of angle iron. The angle iron should be slightly larger than the sides of your anvil's hardy hole & approx. 6" long. Weld the bent piece 4" from an end.



C. Weld side gussets between the free-standing portion of the 1/2" stock and the angle iron and weld a flange (1" x 1/4" x 2.5") along one side of the other limb of the 1/2" stock. Grind the edges of the long side of the angle iron so the jig can be inserted into the hardy hole.

D. To use the jig, prepare the leg unit (details to follow) & while still flat & hot, place the jig either in the vise (as shown) trapping 1 leg between the vise jaws while supporting it with the lateral flange. Strike



the other leg as shown to set the correct 120 degree angle. Be sure to compensate for the taper of the legs. Alternatively, insert the jig into the hardy hole & hold 1 leg while tapping the other (this is a nice way to do fine adjustments).

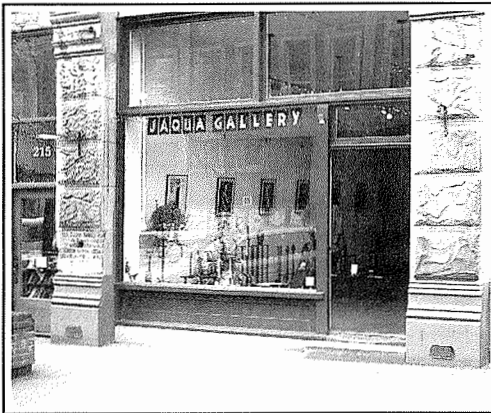
Copyright (C) 1990 - IronFlower Forge

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# Must see places in Port Townsend

**J**aqua Gallery should be the first on your list. Russ opened the gallery in April 1995 then moved to the present location in August 1995. The 900 square foot, 15 X 60 foot gallery has a northern exposure entrance with oodles of forged iron pieces, furniture, home accessories by some of the better known contemporary smiths: Mike Bondi, Steve Bondi, Jerry Culberson, Dennis Proska, Dave Thompson, and of course, Russell Jaqua, himself. A permanent featured upholstery artist is Pam Brickston-Catley. Jaqua Gallery also features a monthly graphic artist. A special event will begin in August, 1996, a quilt show in the gallery. This should delight the N.W.B.A. quilting crew who needle and thread their way through so many blacksmith conferences.



**Fort Worden** is located on Point Wilson, north of Port Townsend. It was built between 1897 and 1911 as part of the coastal defense system. Fort Worden became a State park in 1973 and since that time the buildings are available as a conference center and recreation housing. Concrete gun emplacements and bunkers with many tunnels offer an interesting tour. A coast artillery museum is open daily and features the history of the fort and costal defense systems used during WW II. Sandy beaches, dunes, many picnic areas and trails offer hiking and beach activities for all.

**City Hall** built in 1891 remains the seat of local government and houses the Jefferson County Museum and Library. The museum invites visitors to view Victorian memorabilia and hundreds of photos from Port Townsend's past.

**Jefferson County** Courthouse built in 1892 is one of the two oldest in the state. Its 100 foot clock tower is a mariners' homing landmark.

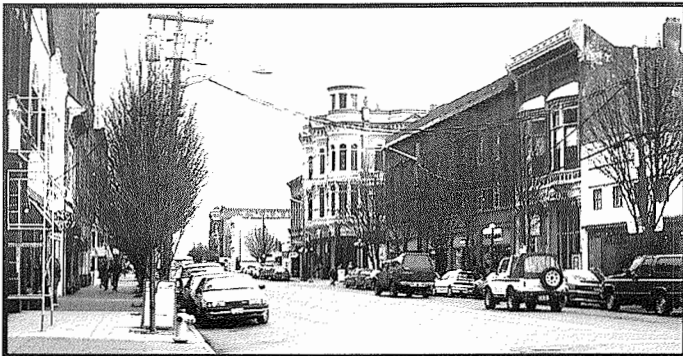
**Marine Science** Center, Fort Worden State Park, houses open "wet tables" for the viewing of local sea creatures. Staff marine biologists conduct lectures, workshops and marine programs.

**Just take a drive** through the Port of Port Townsend marina. Sailboats, power boats and fishing boats moored in this large marina make an interesting tour for flatlanders and ridgerunners. Many boats in various state of overhaul and construction are the favorite subjects of painters and photographers. Real seagulls, ducks and Canadian geese and a wharf rat or two, plus colorful locals who live aboard their craft, make up the general population at the marina area.

**Visitors Information** Center before you get to "downtown" is a must. Maps, brochures, tourist stuff, directions to most anywhere is supplied by knowledgeable, cheerful volunteers. There is so much to see and do on the Olympic Peninsula better plan on taking a week off and just goof around the area.

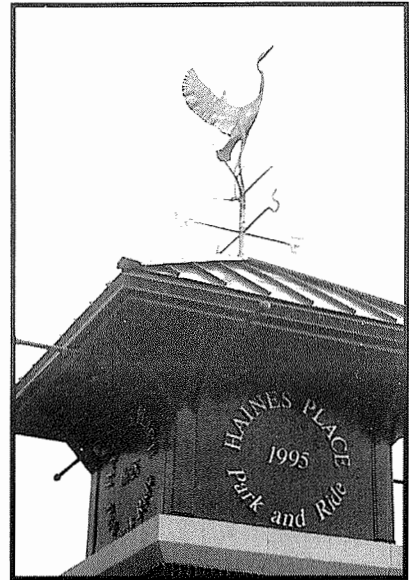


# N.W.B.A. Fall Conference Port Townsend, WA



Port Townsend, WA was named for the English Marquis of Townsend by Captain George Vancouver aboard the HMS Discovery in 1792. Sixty years later white settlers built a log cabin at what is now Water and Tyler Streets. Port Townsend was founded just after Olympia, WA and six months after Seattle. This Washington Victorian seaport is a national landmark with over 70 historic points of interest listed in the visitors center handout. Fort Worden, the N.W.B.A. conference site of the past, is an old coastal artillery fort, now a Washington State park conference site, is a must see for newcomers to the area.

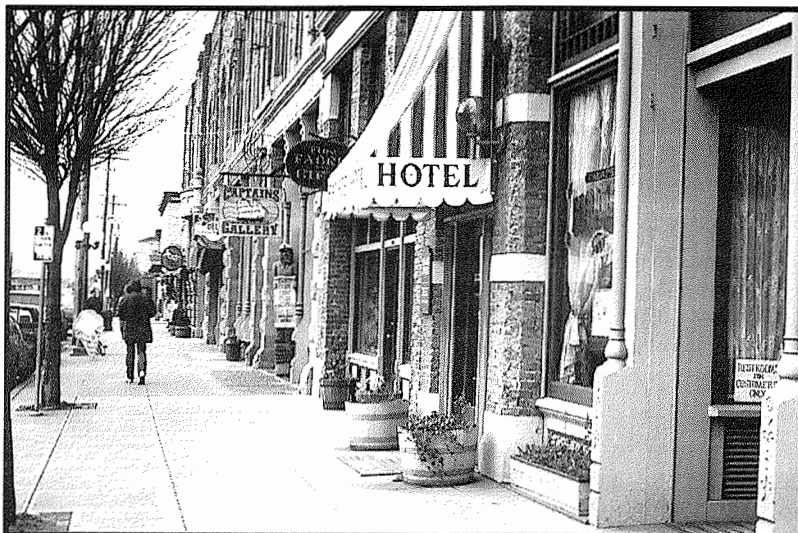
Russell Jaqua is again hosting the N.W.B.A. fall conference in his new shop in an industrial area three miles south of town. Featured demonstrators are Mike Bondi, Steve Proska and Alex Montgomery and



crew. The Saturday night doings will be held at The Palindrome, an old barn converted to an entertainment center run by the City of Port Townsend.

The Saturday evening meal is a catered event with food provided by a local Safeway Super Store. Setup, serving and cleanup will be by N.W.B.A. volunteers. We are expecting 175 people or more at this event so send in your conference registration to make planning easier for the setup/cleanup crew.

Volunteer lists will be posted at the registration desk. This will probably be a bigger event than the record breaking attendance we had at Winthrop last year.



**Top and bottom left** Downtown Port Townsend offers many restaurants, gift shops, book stores, art galleries, antique and specialty shops.  
**Top right** Russell Jaqua's forged Heron atop the Jefferson County Haines Place Copula Park and Ride near the marina.



1996 Fall CONFERENCE REGISTRATION
October 4, 5, 6 (Friday, Saturday, Sunday) 1996
Nimba Forge (Russ Jaqua's new Shop) Pt townsend, WA

Registration and Fees:

[NOTE: The Saturday evening meal is catered, no potluck]

I am a member of N.W.B.A. [ ] I am a member of A.B.A.N.A. [ ]

Table with 3 columns: Description, Amount, Total. Rows include Pre-Registered before October 4, After October 4 or walk-in, Spouse, Children over 10 years old, N.W.B.A. Membership, Out of Country Membership, Auction Item \$5 discount, and TOTAL.

Make your check payable to N.W.B.A. and mail to:
Northwest Blacksmith Association
8002 NE Highway 99 #405
Vancouver, WA 98665

DISCLOSURE/ASSUMPTION OF RISK I hereby acknowledge that by attending the N.W.B.A. Fall 1996 Conference to be held on the property of Russ Jaqua, Pt Townsend, WA. I assume all risks, hazards and dangers that are present on the property by reason of its location, the terrain and the various equipment located on the property. I specifically waive Russ Jaqua and the Northwest Blacksmith's Association of any liability, loss or damage which may occur as a result of my presence on the property. Eye protection, (safety glasses), are to be worn at all times during demos and any forging or metal working operations. You, your family and guests are responsible for eye protection. Please comply.

PLEASE LEAVE YOUR DOGS AT HOME.

ALL ADULTS MUST SIGN:

Name: \_\_\_\_\_ Print Same: \_\_\_\_\_
Family Member: \_\_\_\_\_ Print Same: \_\_\_\_\_
Family Member: \_\_\_\_\_ Print Same: \_\_\_\_\_
Family Member: \_\_\_\_\_ Print Same: \_\_\_\_\_
Address: \_\_\_\_\_ Phone: \_\_\_\_\_
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_



# Port Townsend Map

## Lodging

Port Townsend Motel and Spa,  
 800-822-8696  
 2020 Washington  
 Pt Townsend, WA 98368  
 26 Rooms \$59-\$100

The Palace Hotel  
 1004 Water St.  
 Pt Townsend, WA 98368  
 800-962-0741  
 15 rooms \$44-\$95

Tides Inn Motel  
 1807 Water St.  
 Pt Townsend, WA 98368  
 360-385-0595  
 21 rooms \$58-\$145

Valley View Motel  
 12775 Hwy 20  
 Pt Townsend, WA 98368  
 360-385-1666  
 5 rooms \$40-\$45

Water Street Hotel  
 635 Water St.  
 Pt Townsend, WA 98368  
 800-735-9810  
 8 rooms \$40-\$95

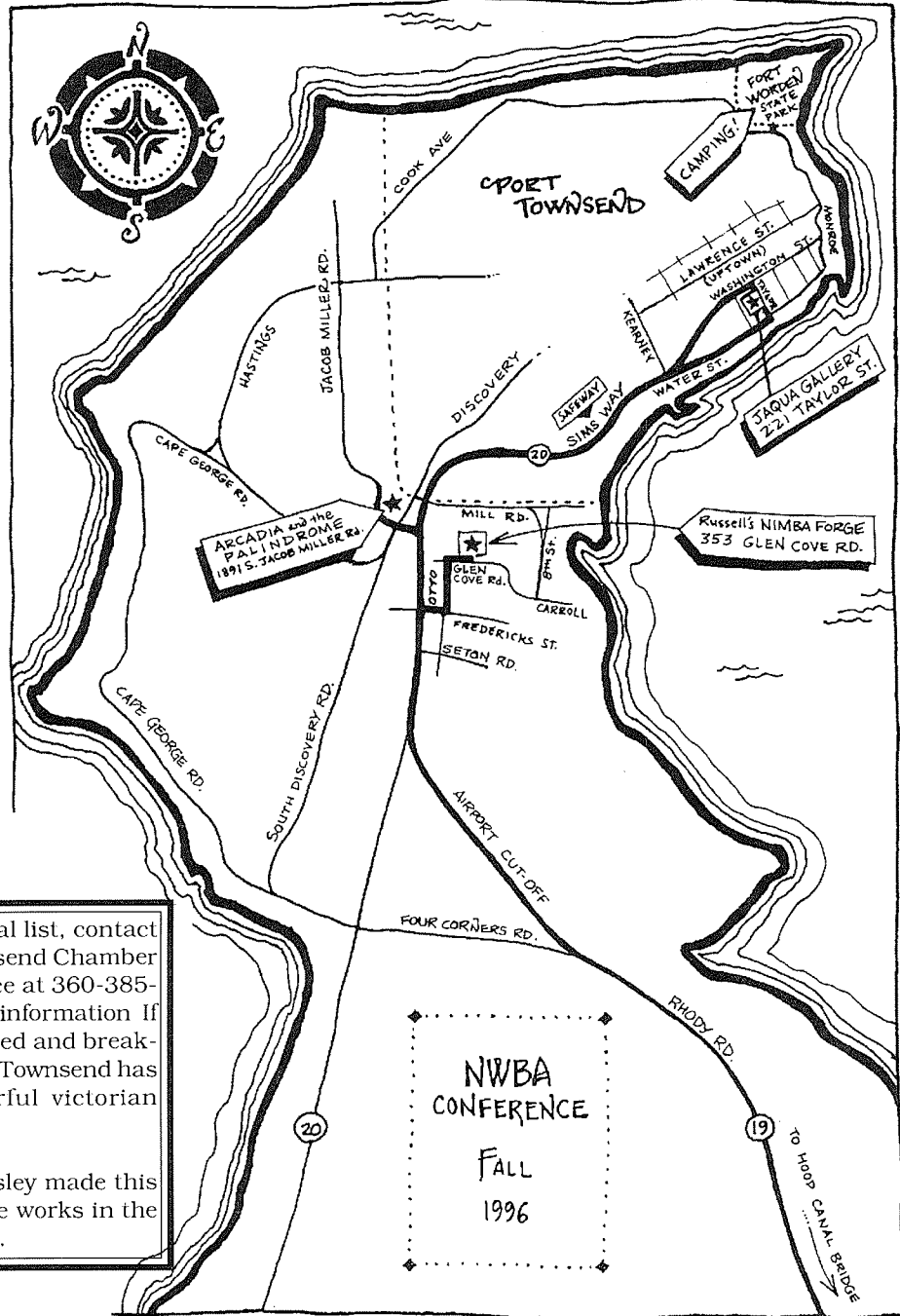
Trenholm House B & B  
 2037 Haines St.  
 Pt Townsend, WA 98368  
 360-385-6059  
 6 rooms \$62-\$95

Aladdin Motor Inn  
 2333 Washington St.  
 Pt. Townsend, WA 98368  
 385-3747

Harborside Inn  
 330 Benedict  
 Port Townsend, WA 98368  
 385-7909

Puffin and Gull Motel  
 825 Washington St.  
 Port Townsend, WA 98368  
 385-2211

This is a partial list, contact the Port Townsend Chamber of Commerce at 360-385-2722 for more information. If you're in the bed and breakfast crowd, Pt. Townsend has many wonderful victorian houses.  
  
Amanda Kingsley made this great map, she works in the Jaqua Gallery.



## Camping (Note, plenty of camping around Russell's shop or within a block)

Fort Worden State Park ( Call early, resevation system)  
 360-385-4730

Point Hudson Resort 360-385-2828

Jefferson County Fairgrounds 360-385-4730, 360-385-3595



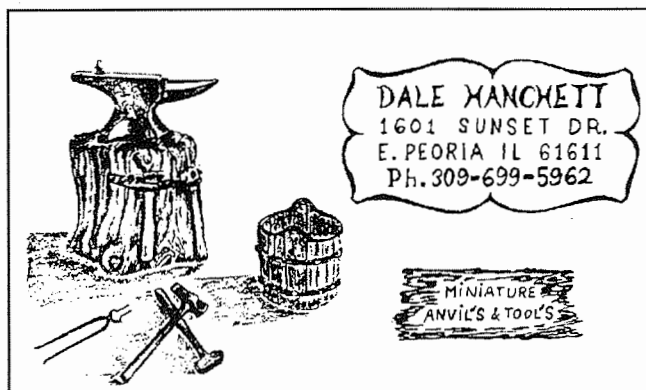
# Fall 96 CONFERENCE SCHEDULE

- Friday  
 8:00 am-12:00 pm Setup  
 1:00 pm-4:00 pm Mike Bondi demo  
 5:00 pm-10:00 pm open forge  
 10:00 pm-? am midnight madness
- Saturday  
 7:00 am - 8:00 am Don Kemper leading calisthenics on the lawn in front of Russ's shop  
 8:00 am - 11:00 am Dennis Proska demo  
 11:00 am - 1:00 pm Alex Montgomery and crew cast iron pour  
 1:00 pm-4:00 pm Mike Bondi demo  
 4:00 pm - 5:00 pm Social hour (Blacksmith talk, story telling, Silent auction)  
 5:00 pm - 7:00 pm Catered dinner at the Palindrome (see map)  
 7:00 pm-10:00 pm Auction with Jerry Culberson and various hooks and crooks  
 10:00 pm-? am Midnight madness
- Sunday  
 6:00 - 9:00 am Everyone converge on the Canuk's campers to sponge coffee and breakfast, whining and sniveling helps.  
 9:00 am -12:00 pm Dennis Proska demo  
 12:00 pm - 5:00 pm Clean up and breakdown tents, shop, etc. Say good-byes, it's all over till Spring 97

Note- Demo times, demo lineup and everything else is subject to change by reason of weather, whim, insanity, and fancy of the N.W.B.A. Board, Port Townsend Port Commission, Joe's Beanery and Smedley Soapstone's fingers on the computer.

## Open forge and Midnight Madness

Don't be intimidated. For those of you wanting to try a new technique or just practice, jump in the fire and give it a try. Many experienced smiths are always around to give advice or show and tell their skills. The N.W.B.A. is about learning and teaching the blacksmith skills. We are planning to have two forges during these evening/night sessions.



Dale had miniatures for sale at the Alfred conference, most impressive. If you're a collector or want that something special for your better half, give Dale a call or drop him a line. Ed

Jon and Richenda (Rikki) were at the Bitterroot Conference last Spring. Rikki had her line of tinware on display and for sale. Beautiful work. She does custom work and made a custom Mt. Man candleholder with handle and bail for my camp. Now if I just could get away from my honeydos and use it. Ed

## BURR CREEK FORGE AND TINWORKS

HANDWROUGHT IRON & TINWARE

Jon M. Scott - Blacksmith  
 Richenda A. Scott - Tinsmith

362 Moose Hollow Rd  
 Victor, MT 59875

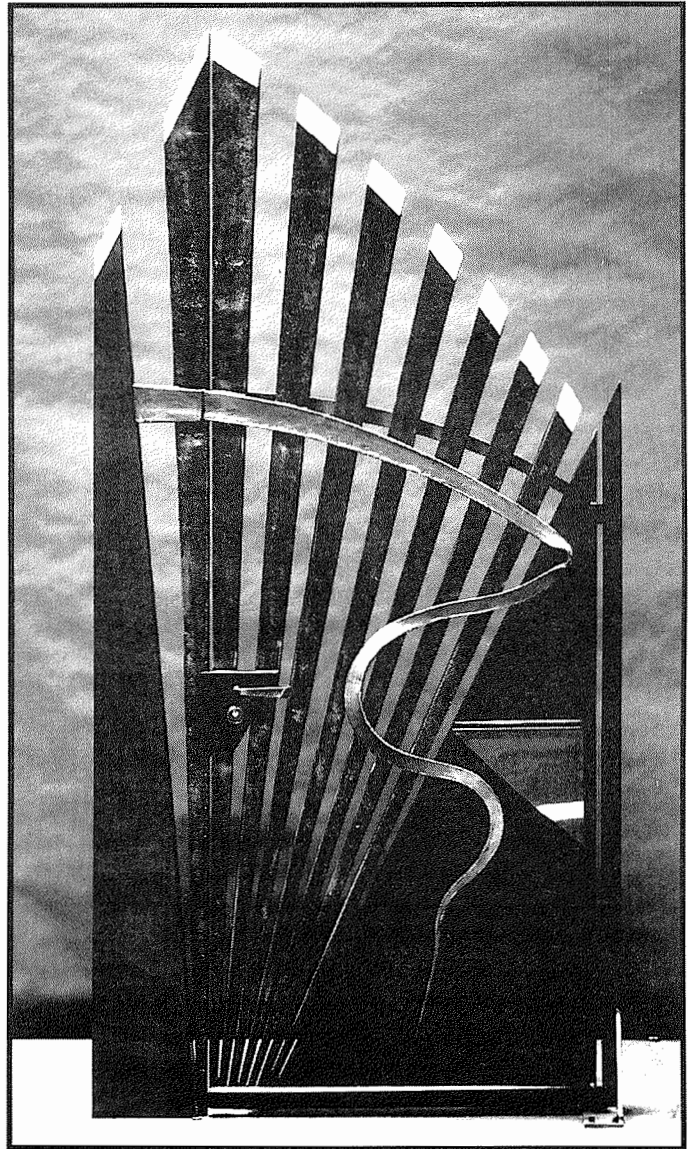
(406) 961-3584

## Fall Demonstrator Mike Bondi

Michael Bondi graduated from Hope College in Michigan in 1972. He went on to graduate study of anatomy at Wayne State. Michael and his family moved to California in 1976 where he and his brother, Stephen, began Bondi Metals. They dissolved their business in 1987 and Michael has since been the President of Michael Bondi Metal Design, Inc. He began exhibiting his work in 1980 and has contributed to over twenty shows since. His work is being shown currently in a traveling exhibition organized by the National Ornamental Metals Museum.

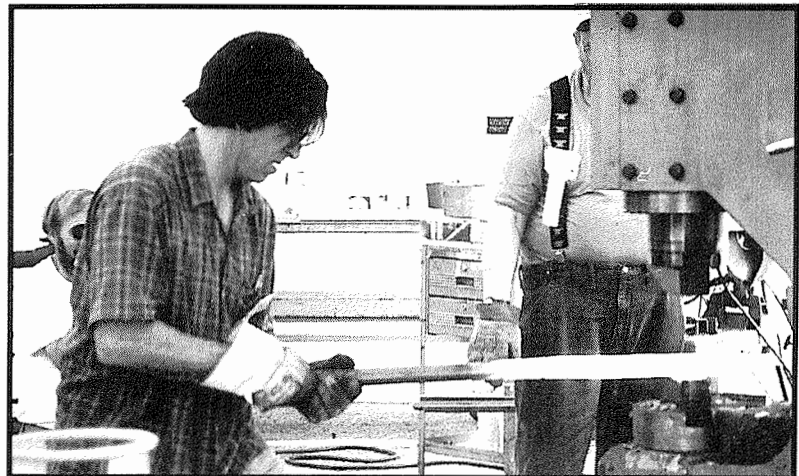
Michael served as Vice-President of the Board of Directors for the Artist Blacksmiths Association of North America from 1988 to 1990. He has been awarded the Mitch Heitler Award, the most prestigious honor awarded nationally by the National Ornamental & Miscellaneous Metals Associations, and over 30 gold, silver and bronze awards from that organization.

Today, Michael Bondi Metal Design specializes in architectural wrought metalwork in a broad range of styles. Michael's personal taste are contemporary, but his shop creates contemporary and classic designs in copper, bronze, monel, stainless steel, aluminum and iron. His work emphasizes heavily forged material with the use of air hammers. Commissions are undertaken worldwide with recent projects in Saudi Arabia and Japan. National projects are presently in Hawaii, New Jersey, Los Angeles, Seattle, and in the Bay Area. A partial list of Bondi clients include, Disneyland, Disney World, EuroDisney, The Grand Hyatt Wailea, Donald Trump, Prince Bandar Bin, The Culinary Academy in Napa and Wolfgang Puck's Postrio Restaurant.



*Above right: Photo supplied by Mike Bondi*

Mike was a demonstrator at the A.B.A.N.A. conference in Alfred, NY June 96.



# Fall Conference Demonstrator

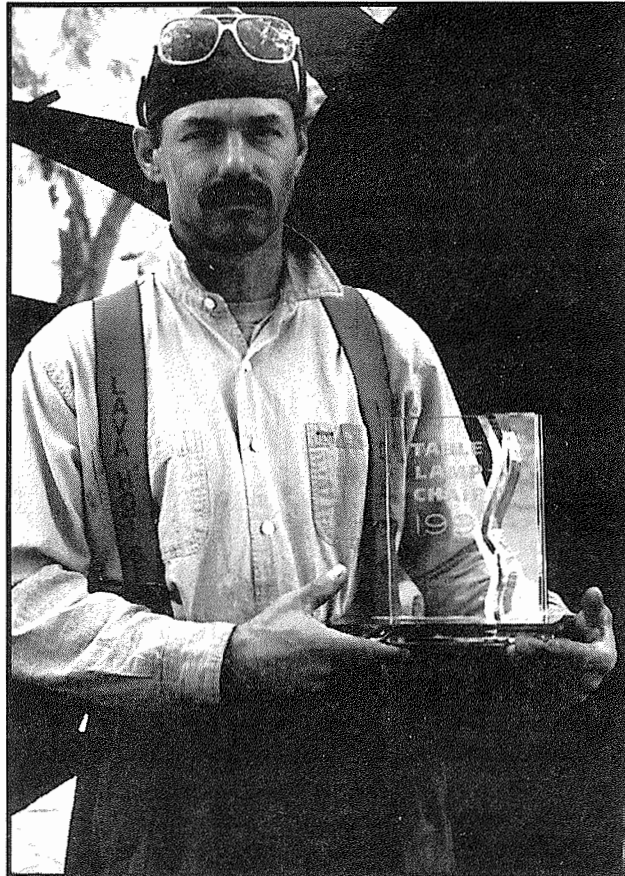
## Dennis Proska

Dennis Proska is owner and operator of Blackrock Forge and Vesuvisus, a furniture showroom and gallery in Pocatello, ID. His speciality is forged and fabricated furniture and one of his goals is to increase his furniture volume to 200 pieces a year. Dennis has been blacksmithing for 20 years and uses a computer for imaging and design development.

Dennis has studied with Valclav Jaros of Czechoslovakia and has a B.F.A. from Carbondale, Southern Illinois University. He was awarded the Best Residential Chair and Best Contract Chair awards in 1995.

His most recent commissions were for the Idaho Museum of Natural History, Bison latifrons sculpture/sign, a cross for The Franciscan Sisters of the Eucharist in Big Sky, ID.

He has been featured in "House Beautiful", has a cover photo on "Good Catalog Company", and is represented by galleries in San Francisco, Chicago, Los Angeles, Denver, Salt Lake City and at Jaqua Gallery in Port Townsend. Dennis and Russell Jaqua worked together in Toowoomba, Australia in '88 to '89. Don't miss Dennis in Port Townsend, WA.



*Photos provided by Dennis Proska*



Dennis Proska had some of his work in the Jaqua Gallery

# Fall Conference Cupola Cast Iron Pour

Alex Montgomery and crew of University students and Iron-Casting Friends will operate the iron casting cupola at Russell's shop. This is not a U. W. sanctioned event. Just friends; getting together. This is the chance of a life time, see it all at Russell's.

*Photos by Alex Montgomery*



Pouring molds



"Tapping out", filling the ladle with hot iron.

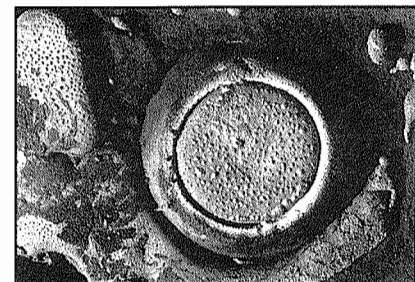
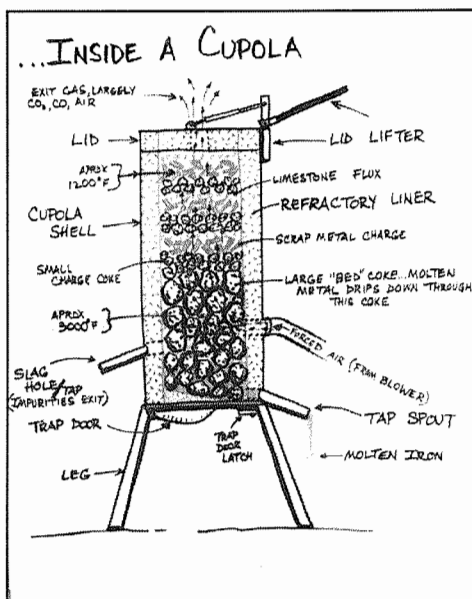
**CUPOLA IRON CASTING**

THE CUPOLA IS A FURNACE USED TO SMELT IRON ORE INTO CAST IRON, OR REBELT SCRAP METAL. IRON MELTS BETWEEN 2400-2600°F, COMPARED WITH BRONZE AT 2000°F, AND ALUMINUM AROUND 1200°F.

THIS CUPOLA IS CHARGED WITH ALTERNATING LAYERS OF IRON CHUNKS, COKE BRIQUETS, AND LIMESTONE TO FLUX AWAY IMPURITIES.

AFTER THE CUPOLA IS INITIALLY PREHEATED WITH PROPANE, THE COKE BECOMES WHITE HOT AND BURNS WITH AIR FORCED INTO THE CUPOLA THROUGH A WIND HOLE CALLED A "TUVERE." AFTER ABOUT 2 HRS, METAL WILL START MELTING AND FILL THE BOTTOM OF THE CUPOLA. A TEMPORARY CLAY PLUG IS REMOVED AND METAL STREAMS INTO A LADLE, WHICH THEN IS CARRIED TO MOLDS WAITING TO BE FILLED.

Basic info



Iron cooling in a mold



# Blacksmith Shop Tour

By Ike Bay

The brick path ends at the Phil Baldwin gate, beyond is the garden area

My shop is a mixture of other people's ideas and concepts that I have adopted. The first factor in putting together a shop is what kind of a smith are you or do you want to be. I have been in the historical Williamsburg/Peter Ross/D. Streeter mode\* (Colonial era items) for some years. Trying as Mr. Streeter says, "make common things uncommonly well." So I keep the shop simple and uncluttered.

The shop is in the suburbs, in the back yard of my home. Joe Elliot calls it the "yuppie blacksmith shop". It's 18 X 20' with the outside siding matching the house, with a wide door and windows front and back for ventilation and natural light. I have good neighbors who don't mind the noise and I keep the operating hours reasonable.

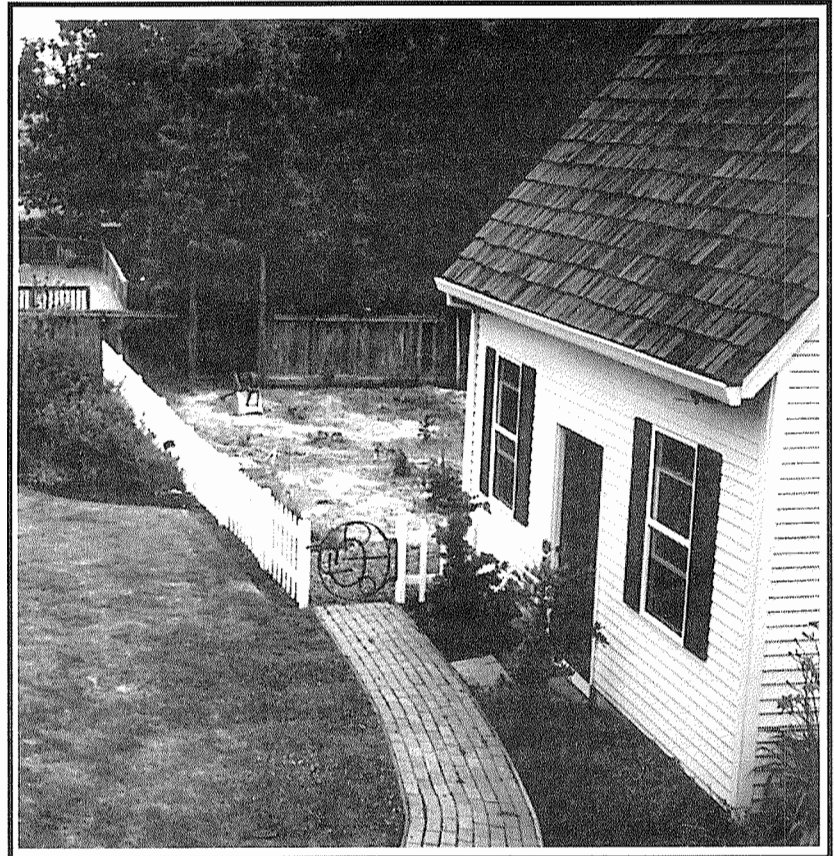
There is a Phil Baldwin gate and a Russ Jaqua sign from the farm that are incorporated into the place. The farm sign now reins over my garden patch. In truth I could cut this space down quite a bit and still be very comfortable. The open space lets other smiths come visit and we set up several work stations and have a great time.

My power hammer is a 50 # Little Giant with flat dies. The unit has been rebuilt and is much like new. It is held in place by two, three sided, angle iron clips anchored to the floor, a Berkley Tack idea.

For anvils I have two, a 300# plus for most use and a smaller outfit to take to workshops.

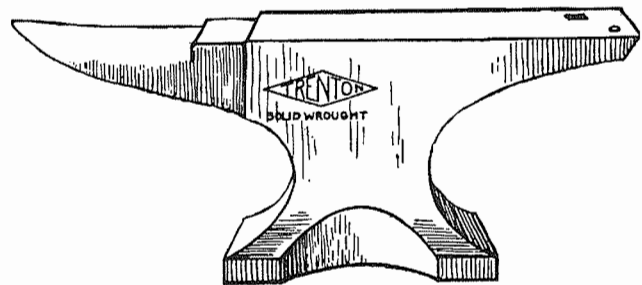
The forge is gas and was brought and left by Darryl Nelson for a conference at my farm. Since then I have worked to improve it but every change has not been for the better. Research in forge improvement continues. The forge sits on a steel table formerly used for a coal forge. Tong and hammer racks are nearby and lots of room for material, flux, wire brush, etc. on the table around the forge. Swage storage and slack tub are underneath the table. Two leg vises are attached to benches rather high to make file work easy. The shear is a Peter Ross idea, it came from Grizzly, I use it a lot.

Good lighting is over the bench work areas. An old reciprocating cutoff saw is mounted on castors and stored under a bench for easy access. My steel is divided into two areas, mild and tool steel. I have spoon and ladle forms with matching mushroom steaks and a set of Yader



blocks which are used mostly for their side forms, half round and half square.

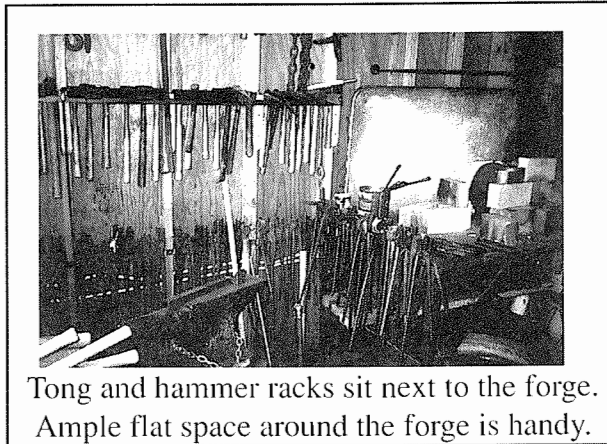
Being in a historical mode of blacksmithing does not make any claim to the quality of the items produced by the author. We still have a long way to go and therein lies the fun. There is a lot of file or "white" work associated with the colonial pieces. They speak quite clearly that hand-made is not synonymous with bad made. Functional and ugly is easy, functional and attractive is harder. Joe Elliot quote..."eye sweet and hand friendly" says it all.



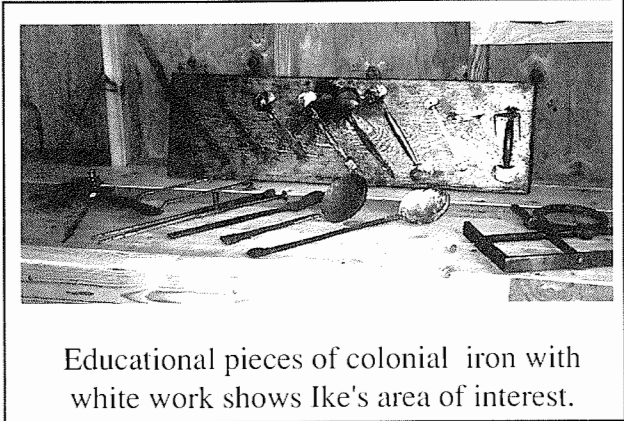
May the Forge Be With You



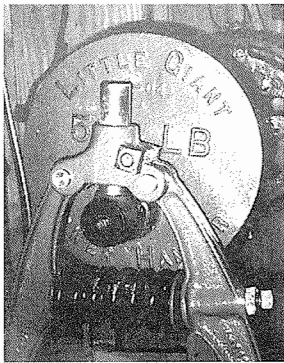
## Blacksmith Shop tour



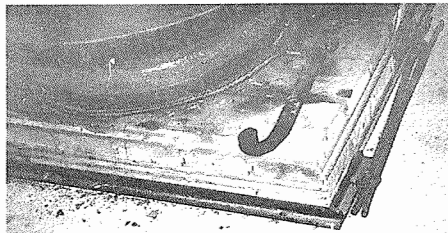
Tong and hammer racks sit next to the forge. Ample flat space around the forge is handy.



Educational pieces of colonial iron with white work shows Ike's area of interest.



A rebuilt 50# Little Giant is used for heavier work.



Angle iron clips anchored to the floor with 3/8 " anchor bolts keep the Little Giant tethered.

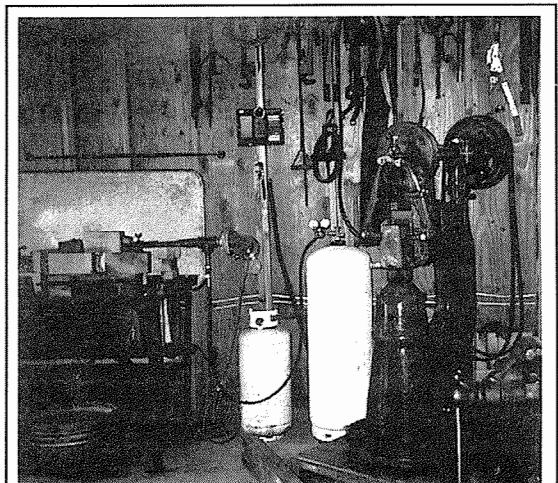


Storage and bench area with plenty of lighting, natural and electric are a must for handwork.

*Photos by Ike Bay*

### Ike's thoughts and ideas

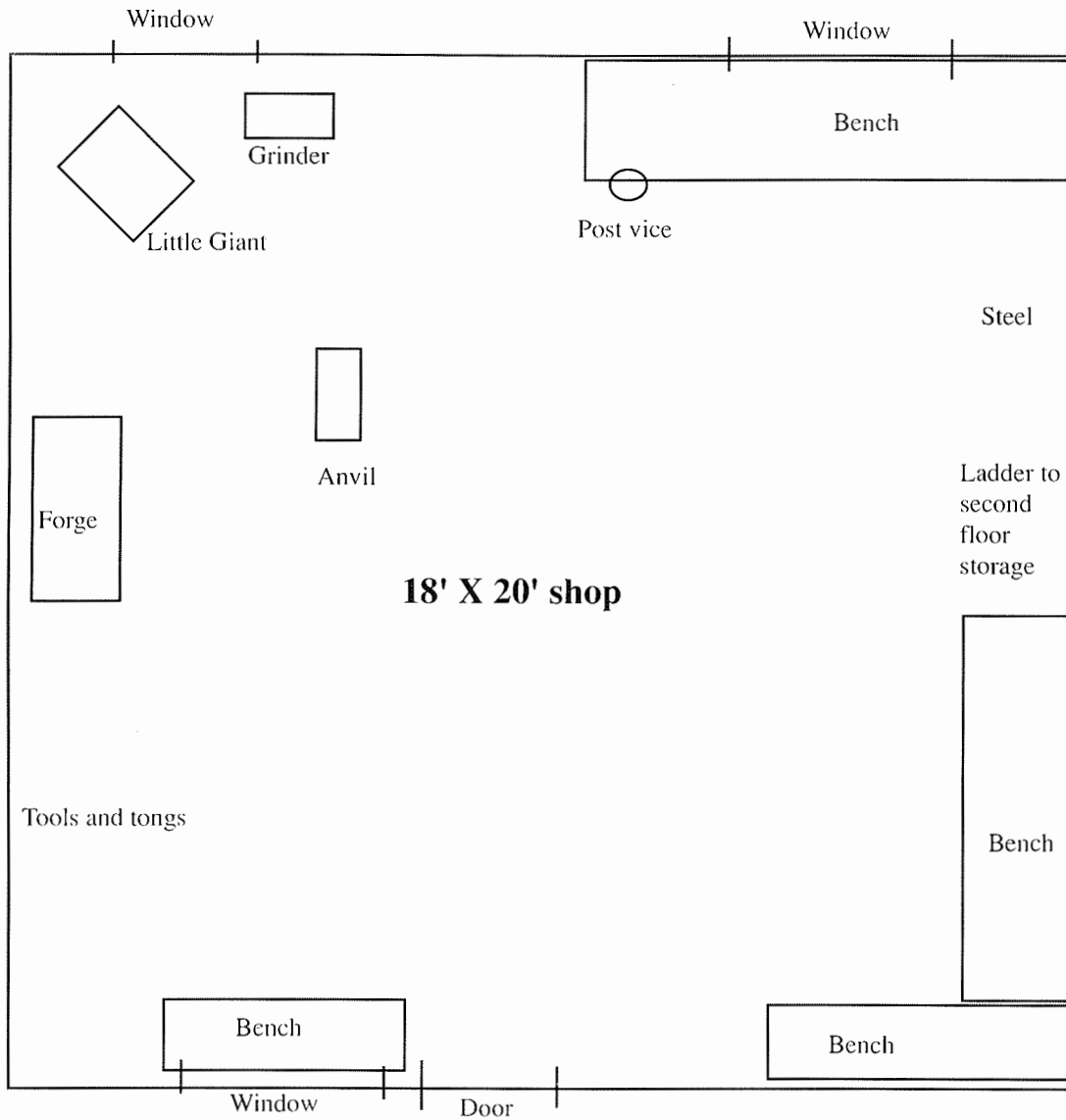
"Benches are attached to walls for extra stability."  
 "Guards and a brake system for my little Giant are in the future."  
 "The smaller double bick anvil from Russ Jaqua has a lot of appeal for me, just have to get the bucks."  
 "It is easier to do good work in a marginal coal forge than a marginal gas rig."  
 "Arc welding is not cheating."  
 "A machinist vise is to be installed on a third bench."  
 "As my skills improve the quality of my pieces improve and I under take more challenging work. It is not my desire to earn a living from this, but I do gain a great deal of enjoyment in learning and growing in the craft."



Forge, power hammer and anvil are all situated close by.



Ike's Williamsburg forge layout (not to scale)



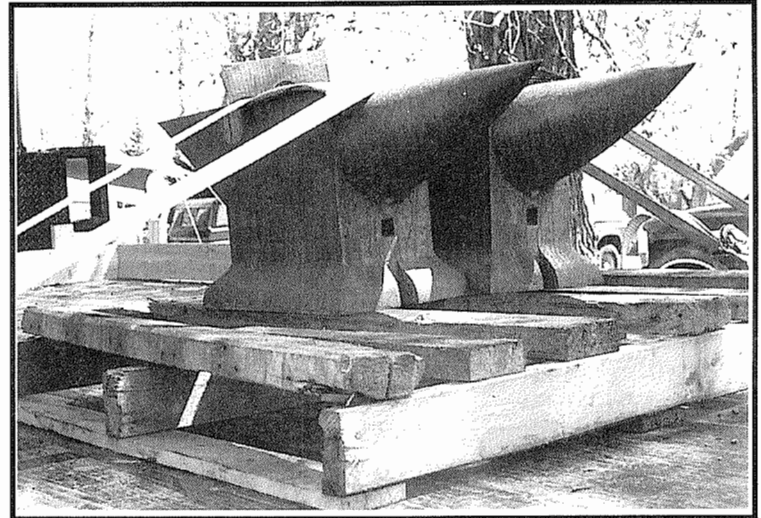
**Wanted**

**S**tories, drawings and photos of your shop for blacksmith tour articles for the *Hot Iron News*. I wish I could visit each and every N.W.B.A. member's shop, but now that I'm retired there just isn't enough time in the day. Put your thinking caps on, shoot some snapshots, draw an outline of your shop layout, it's an easy way to get your name in the paper. Send some photos of your work too.

Perhaps I may just do the same someday. My shop is a 14" diameter octagon, circa 1975, yeah I hear you, whatever possessed him to build an octagon shop, well that's another story. I've heard of shops in tents, teepees and redwood stumps, wonder who in the N.W.B.A. has the most unique or unusual location for a blacksmith shop. Maybe this would be a great contest, wonder what our exalted board would say about that? Ed

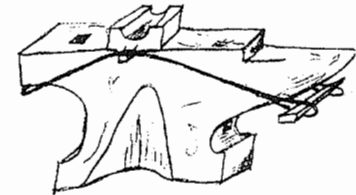
# Anvils, Anvils, Anvils

Gladiator, double horn anvils sit atop Jerry Culberson's Kenworth in Dave and Babe Brandon's front yard during the Spring dual meet. Jerry hauled four over for delivery. Dan'l Moore, Dennis Proska, Wes Webb and Will Wilkens bought one. Midnight madness found Dan'l Moore and son forging on Dan'l's new Gladiator anvil.



6-10-96  
**Gladiator Hold Downs**  
 I love this new anvil! and I didn't want big old ugly straps holding it down so I did the following. It works and looks great. Just something to pass on. Wes Webb

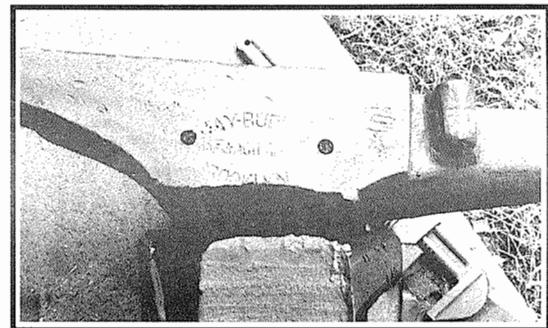
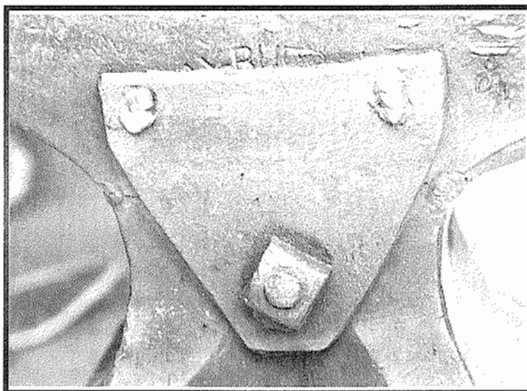
1"  $\Phi$  FORGED TO FIT HOLES IN ANVIL.  
 1"  $\Phi$  8" LONG  
 DRILLED & TAPPED  
 5/16 N.C.



French Locksmith's Swage

Drawn from Early American American Industries Association Book

Bet you didn't know Smedley Soapstone has a 220# anvil in his guest bedroom. Guess what it's used for?



Wayne Goddard bought a 180# Hay-Budden anvil at the Oregon Knife Collectors' Show, it had come unglued at the weld line. It had been repaired with bolts, plated and some welding. Wayne's explanation of repair follows, "I ground in a 45 degree or so, 3/4" deep and clamped the two pieces securely, cranked the buzz box onto high, super hot. Took about twenty sticks of 5/32" 6013, looks good all antiqued and on a nice base. I took off the addition for doing toe caulks, left the three holes unfilled for conversation starters. Extremely hard face but not noisy like some. This is a real nice anvil!"



# Bitterroot Happening



Dave and Babe Brandon

## SCROLLWORK & REPOUSSE AT NORTHERN ROCKIES BLACKSMITH SPRING CONFERENCE

By Jerry Kagele

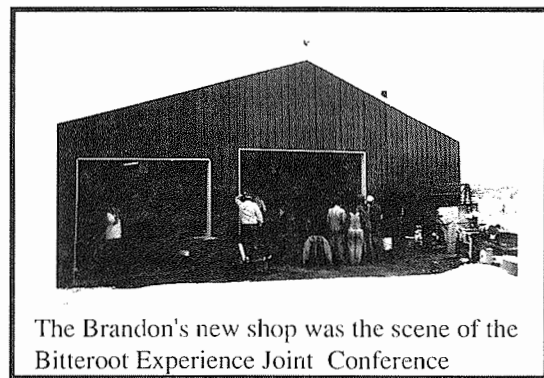
The N.R.B.A. Spring Conference at Dave and Babe Brandon's in Stevensville, Montana, featured the combined artistry of N.W.B.A.'S Jerry Culberson and Nahum Hersom. Jerry designed an elaborate, elegant scrolled sign-holder complete with fleur-de-lis and decorative finials. Nahum, a nationally recognized master of repousse, added ornamental leaf work to the scrolls.

Jerry started the scrolls with 1/2" by 1" stock and worked from a large scale drawing. He describes his theory of scroll work in the theorem that "a circle is nothing but 360



Nahum Hersom and Jerry Culberson show their demo project.

flats." He preserves visual effect by handcrafting the scroll and reserving the use of a scroll jig only if numerous repetitive designs must be made. He emphasized the artistic value of working the entire bar of stock i.e. champhering, breaking edges with the hammer, and even using forge heat to texture the metal. Jerry's construction of the scroll work was in both the fundamentals and intricacies of metal joinery. In forging the tenon for the mortise and tenon joint, he used the same theorem i.e. that a round tenon can be forged out of square stock by using a forging progression of 4-8-16-32-round. This means that the smith keeps working diminishing squares which eventually are planished smooth into a round shape. This leaf eliminates the nearly impossible feat of attempting to chase a round surface with a squared-faced hammer.



The Brandon's new shop was the scene of the Bitterroot Experience Joint Conference

Another tactical point demonstrated by Jerry was the use of a ballpein hammer to pein out dings and scars in an anvil face. With a succession of peining blows, the metal can gradually be replaced and the anvil surface restored.

As for the joinery, Jerry emphasized starting with a small hole and to punch from both sides of the stock. The punch should be struck with several blows, pulled out and turned 180 degrees to keep the hole consistent in shape. He talked about the use of S-2 stock for punches and using restraint in quenching the punch as it becomes hot from the hot stock. The drift can be mild steel and is ground with a taper from both ends.

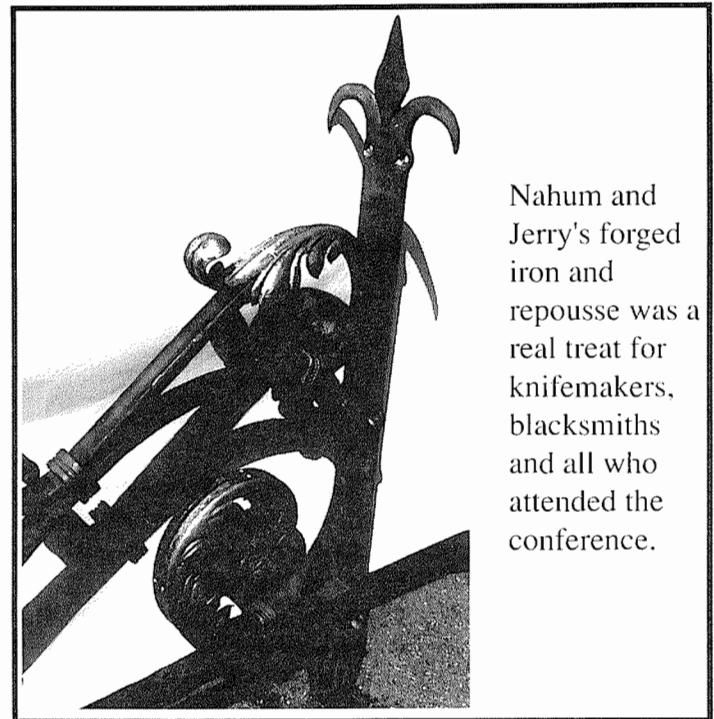
Repousse and scroll work begins with the construction of the basic iron frame. Nahum's tool repertoire includes under-tools, forming tools, and hammer tools. He used aircraft snips to cut out the basic leaf forms from 1/6" stock. He then formed the inner circular primary shape on depressions in the end of a stump. He emphasized that, when hammering, twists need to be immediately corrected and metal puckers hammered smooth. Nahum's tools were grooved wooden blocks used to form leaf necks, a variety of straight and curved hammers, numerous forming stakes, and a lead block used as a cushion.



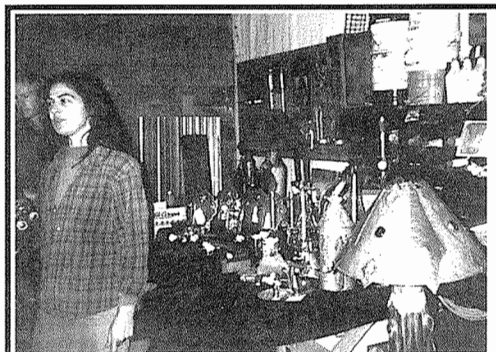
# Bitterroot Happening

Nahum invests six to seven hours of labor to make a leaf. Emphasized the patience required in repousse and the rhythm and touch that must be developed in the delicate hammering operations. After the primary lines and shape of the leaf are formed, the vein lines are marked with a lead pencil. The leaves are formed on grooved metal stakes and then a hammer is used to pound down the metal along the planished vein rib on top of the leaf. The surface of the leaf is then planished and the edges smoothed. He emphasized the number and diversity of tools required to work the inner parts of the leaves. The stakes and forming tools come in all different shapes and with different forming heads. For leaves, he stated that 20 gauge material is ideal for cold work. Likewise, the weight of the hammer head is determined by the gauge of the metal being worked. The essential element being control throughout this delicate process.

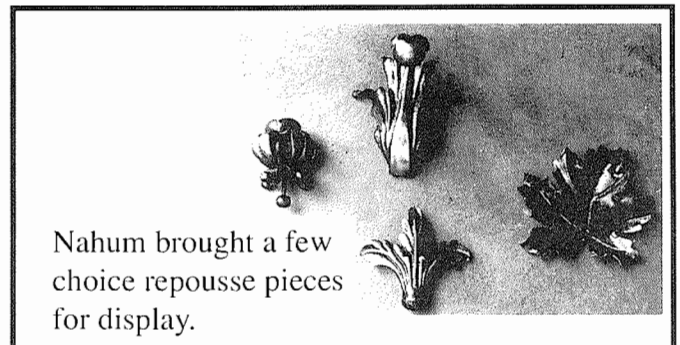
The final work turned out to be an intricately crafted masterpiece of forged iron and repousse leaf work. The N.W.B.A. has a video available of the Hersom-Culberston demo which can be obtained from the N.W.B.A. library. It details the tools and techniques used by both craftsmen and offers a rare- glimpse into true Old World artistry.



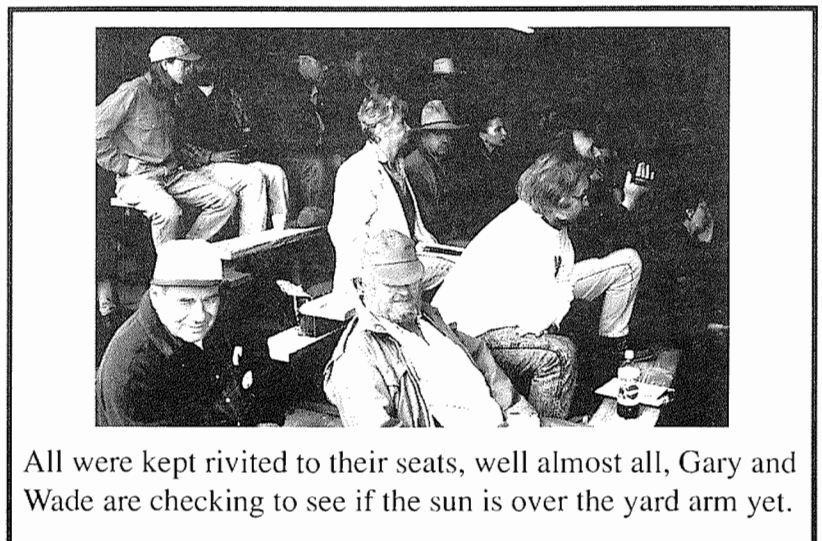
Nahum and Jerry's forged iron and repousse was a real treat for knifemakers, blacksmiths and all who attended the conference.



Rikki Scott brought her tinwares for display and sale. Rikki had an impromptu demo for us iron pounders in some of the finer points of sheetmetal work. Beautiful work Rikki, hope we see you and your wares at Pt Townsend.



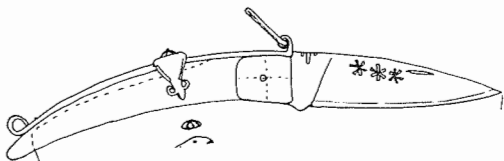
Nahum brought a few choice repousse pieces for display.



All were kept riveted to their seats, well almost all, Gary and Wade are checking to see if the sun is over the yard arm yet.

*Ed Mortenson, The Northern Rockies Blacksmith Association newsletter editor, supplied most of the photos for this story.*

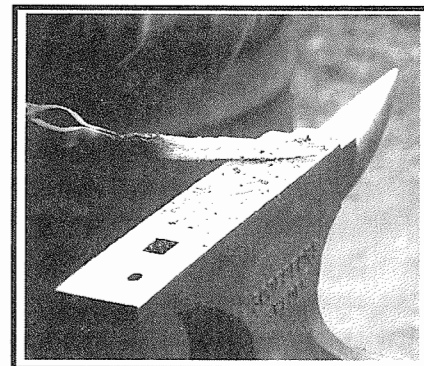
## Bladesmith Corner from Montana



Montana has many knifemakers and bladesmiths, many of which are members of the Northern Rockies Blacksmith Association, (N.R.B.A.). Ed Mortenson from Darby, MT, Bob Hollar of Great Falls, MT and Ed Caffrey also of Great Falls, were among the many that were at the spring doings at Dave and Babe Brandon's. Ed is the editor of the N.R.B.A. newsletter and has a shop, The Blade Lair, and has knives and knife kits for sale, plus offering sharpening. We talked a bit during the conference and discovered we had a similar past in that we both had an electronics background from our Navy years. Ed was kind enough to trade photos from the conference, most of the Bitterroot photos are his unless otherwise noted. Bob Hollar forged "Goshawk Knives" and demonstrated forging 52100 bearing steel the first day of the conference. That steel is extremely tough to forge as Gary, my son, and I found out. Bob tutored us through a session of frustration, sweat and slow moving metal in roughing out a blade blank. Bob was a Navy jet fighter pilot back in the Viet Nam days. Ed Caffrey made up a new style of forge for bladesmithing using an empty, depleted, surplus, gas container. The accompanying photos shows the design.

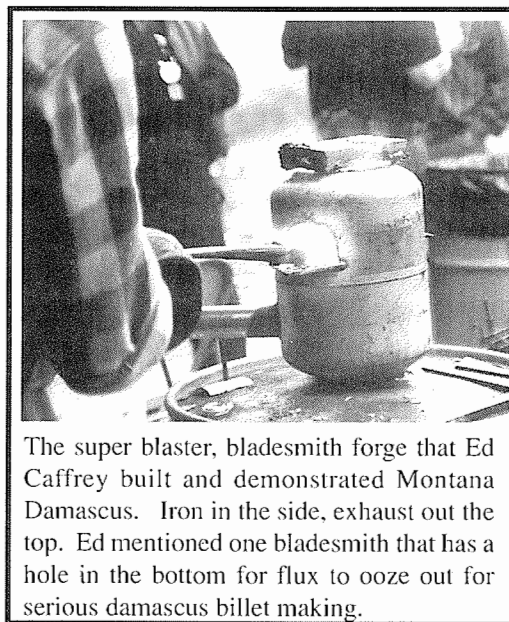
The vertical forge has two doors, a top chimney, or vent, and the gas fuel mixture enters the chamber at the bottom. A hole in the bottom allows accumulated flux to exit the forge. Ed's demo included forge welding a piece of Montana Damascus steel using barbed wire, bed springs, and a steel fence post. The whole thing was first kind of forged together, then using a welding heat and plenty of borax flux, welded up with much interest and comments coming from an interested crowd. After it was welded a couple Montana human power hammers drew the billet out and welded it up several more times. Several small anvils in profile were made from the billet. Babe Brandon bought one in the auction.

Ed recently got out of the Air Force to pursue knifemaking full time, although he has enlisted in the Montana Air National Guard.

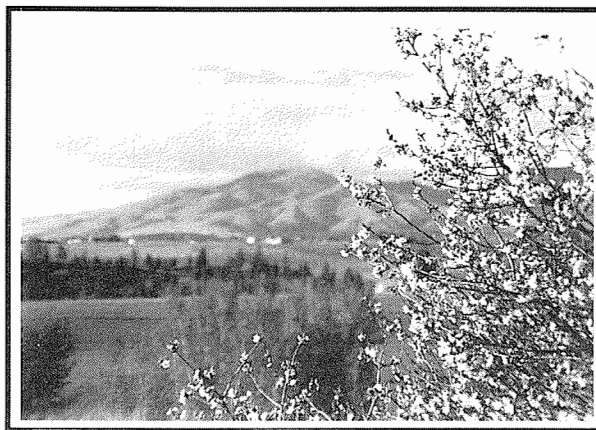


Montana Damascus Steel, barbed wire, bed springs and a fence post.

This was the most fun demo I've seen in a long time!



The super blaster, bladesmith forge that Ed Caffrey built and demonstrated Montana Damascus. Iron in the side, exhaust out the top. Ed mentioned one bladesmith that has a hole in the bottom for flux to ooze out for serious damascus billet making.



One of many relaxing views from Dave and Babe's blacksmith shop. An apple and cherry orchard are down the hill from the shop.

Photos by ed.



## The Twin-Screw Chain-Drive Blacksmith Vise

by Dick Naven

Ever wish you had a vise that would do what you wanted it to do? That would grip without slipping twisting or turning? This one does. At the N.W.B.A. Conference, as I watched Dave Thompson do chopped flowers in a machinist vise on a pedestal, I realized that we were asking the vise to do something it wasn't designed to. The vise simply wasn't adequate to the task, and I could see what the vise needed in order to be able to do the job. The necessary features are.

1. Lead screws on both sides of the object, for a strong grip.
2. Chain drives to keep screws in synch, using just one handle.
3. Jaw plates having deep milled grooves, to keep object from twisting and turning.
4. Large acme-thread screws for quick operation and long life.
5. Heavy base plate and support columns for stability, and impact.

The vise in the picture is the result. I started by making the jaw assembly first, using some 1 inch acme threaded rods and matching nuts, 4 threads per inch. Placing the screws 8 1/2 inch apart results in a space 6 inches wide between the screws and their protective shields. The shields are 2 inch pipe, split in half, and they protect the screws from flying hot stuff and not-so-hot misguided hammer blows. They are welded to the front jaw assembly. Notice that the front jaw is stationary, and the rear jaw is the one that travels. You can see that for a wide range of jaw openings, the object in the jaws will still be directly over the support columns.

The roller chain is number 40, and the sprockets, which have 20 teeth, are keyed to the acme rods. Behind the sprockets are large 1/4 inch thick bronze thrust washers. Add grease as necessary. The washers need to be thick so they won't drop into the coarse acme threads. When welding the handle assembly onto the sprocket of your choice, use stainless rod; sprockets aren't exactly mild steel.

The jaw plates are removable, which means you can use jaw plates of whatever design does your job best. Mine have small V-groove and a larger U-groove, both vertical and between the screws, to accommodate squares and rounds from 1/2 inch on up. They also have a large horizontal U-groove, above the screws, for working on longer bars.

Once you have the jaw assembly finished, you must choose the height at which you want to work, in order to determine how long the columns will be. As you will be using tools or air tools above the object in the vise, be sure to make the vise low enough to work at without elevating your arms and elbows constantly. I'm 5'5" tall, and my vise is 32 1/4" high.

The base is 2" thick and weighs 185 lbs. The total weight is probably about 300 lbs. You can make yours "portable", as I did, by adding a couple of stout wheels in back, and a square socket in front. Just use a 5' bar as a handle to move it wherever you need it. My 375 lb. anvil on its 200 lb. stand is movable in the same way.

Another task made easier by this vise is threading rods. Its' strong grip allows better alignment of the diestock, for a straighter start. And, since it doesn't slip, you can really lean on those bigger dies. I'm using this vise for more jobs, and my bench-mounted, machinists vise less and less, all the time.

If you have questions about features or dimensions that I haven't made clear, or ideas for improvements, you can contact me at:

### Naven Restoration Specialties

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Portland, OR 97219

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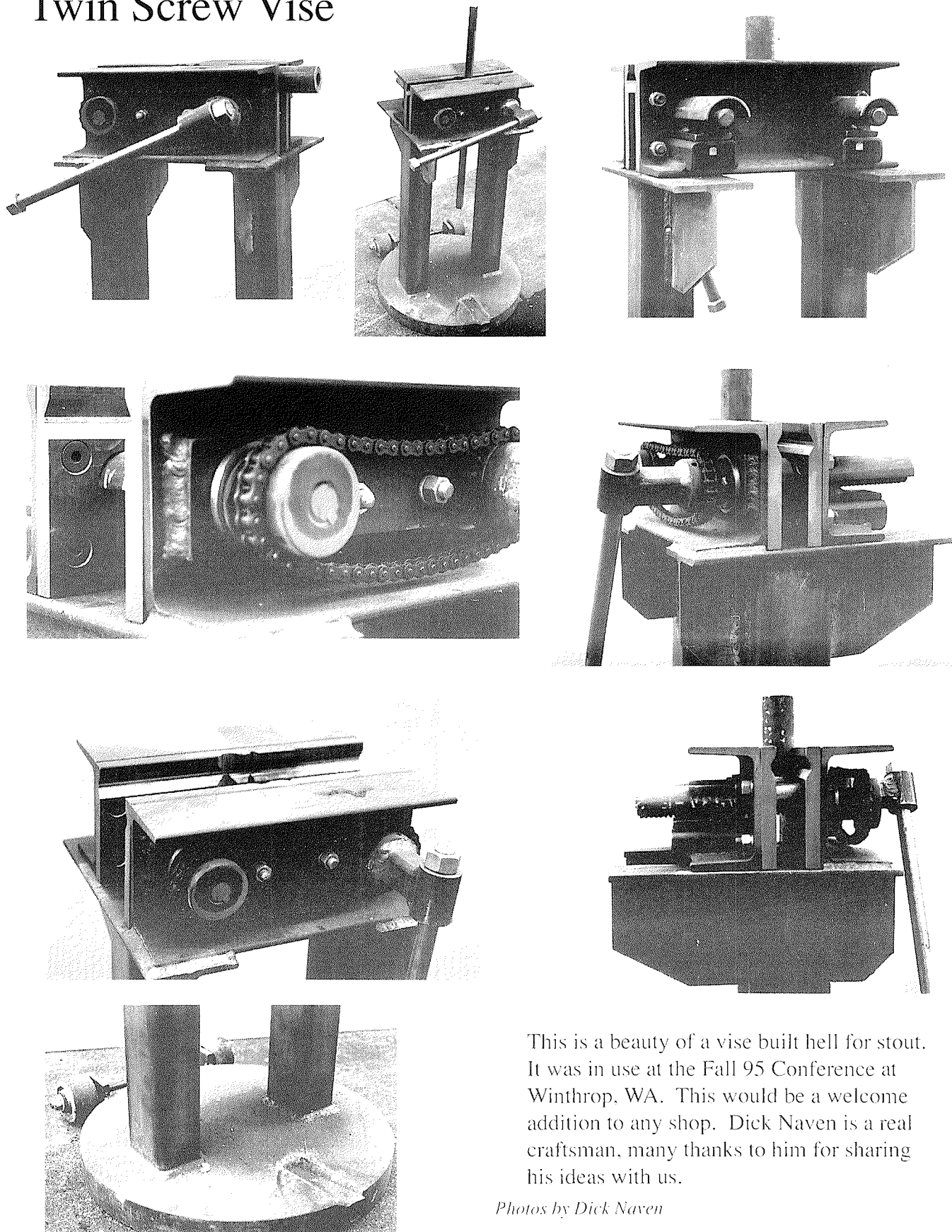
### Parts/Material List for Vise/Jaw Assembly

- 2pcs-6' x 3 1/2", 14' long, 18# Ship & Car Channel
- 2 pcs-1"x4TPIx12" long, Acme threaded rod
- 4-Acme threaded nuts
- 2pcs-2"Schedule 40 Black iron pipe, split in half x 9"long
- 1pc-1/2"x3"x12 1/2" long thrust plate
- 2 pcs-3/8"x2"x4" long flat bar
- 2pcs-1 1/2"x2 1/2"x4" long, Channel (from square tubing)
- 2pcs-3/4"x6"x14" long, Jaw plates
- 2- 1"steel flat washers
- 2- 20 tooth x 1" Bore sprockets for #40 Roller chain
- 1- length #40 chain (54 links)
- 2- 1/4" Square keys
- 1 pc- 7/8" diameter rod for handle
- Various bolts, nuts and misc. pieces.

### Base Assembly

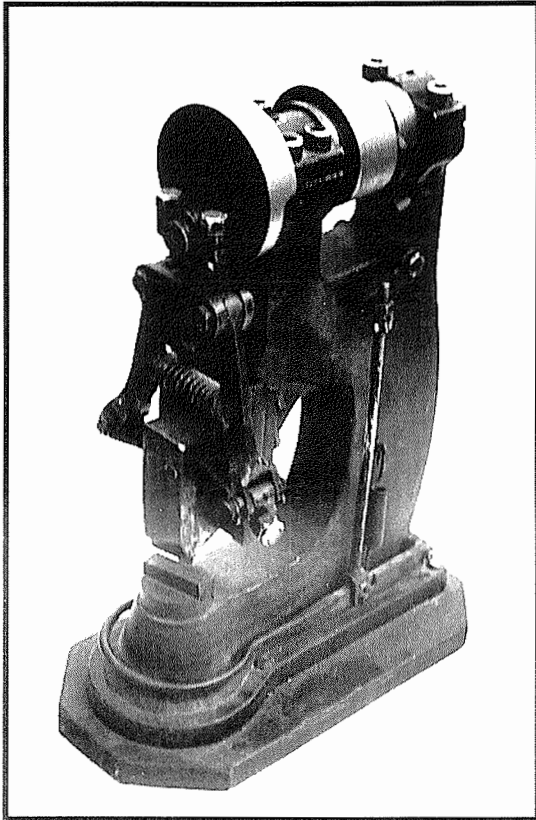
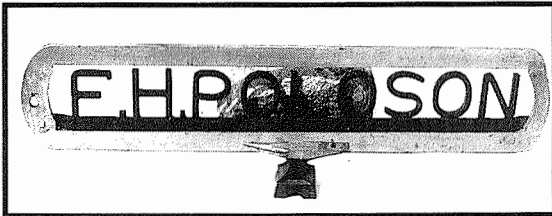
- 1pc- 2" plate, 20" in diameter
- 2pcs- 4"x3"x 1/4" x approx. 24" long rectangular tubing
- 2 pcs- 6' x 14" Split from 12"x4"x14" I Beam
- 2 pcs-6"x4"x14" long Tee split from 12"x4" !6.5# I beam
- 2- Wheels, with axle and mounting pieces
- 1 Square tube socket (size to fit your moving bar)

# Twin Screw Vise

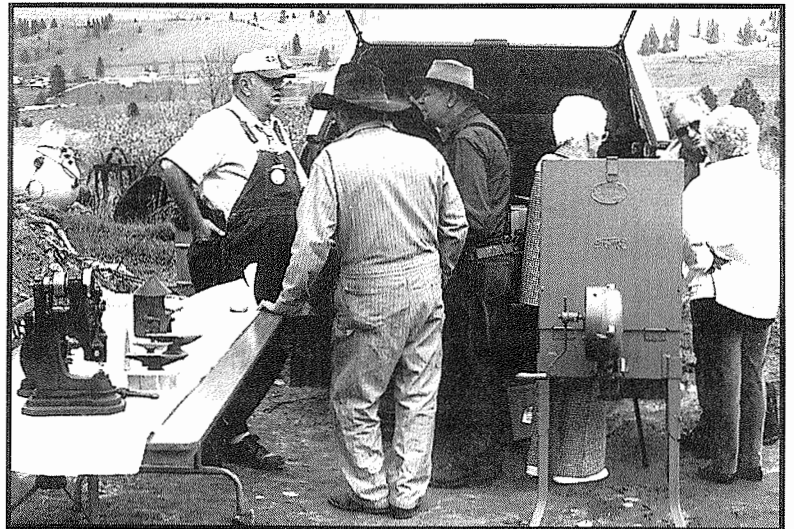
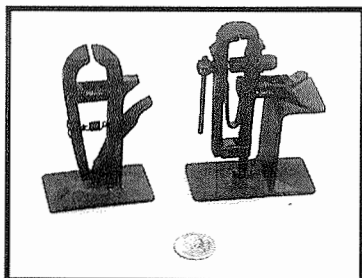
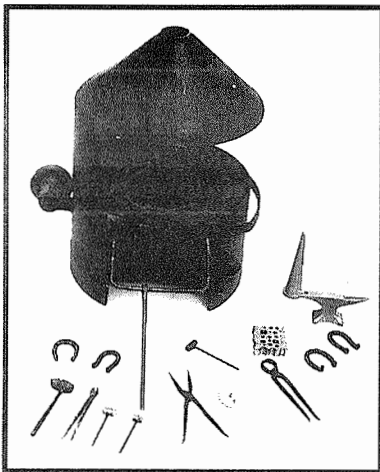
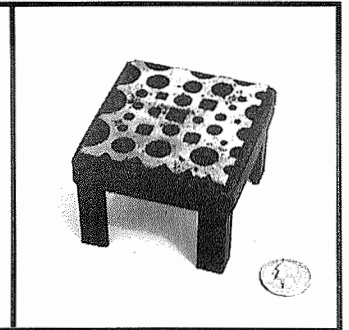
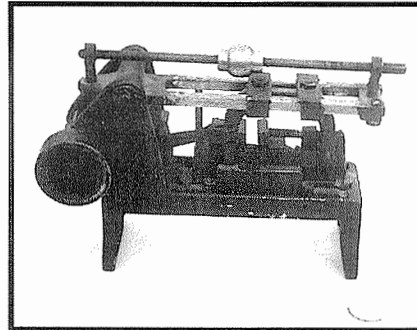


This is a beauty of a vise built hell for stout. It was in use at the Fall 95 Conference at Winthrop, WA. This would be a welcome addition to any shop. Dick Naven is a real craftsman, many thanks to him for sharing his ideas with us.

*Photos by Dick Naven*



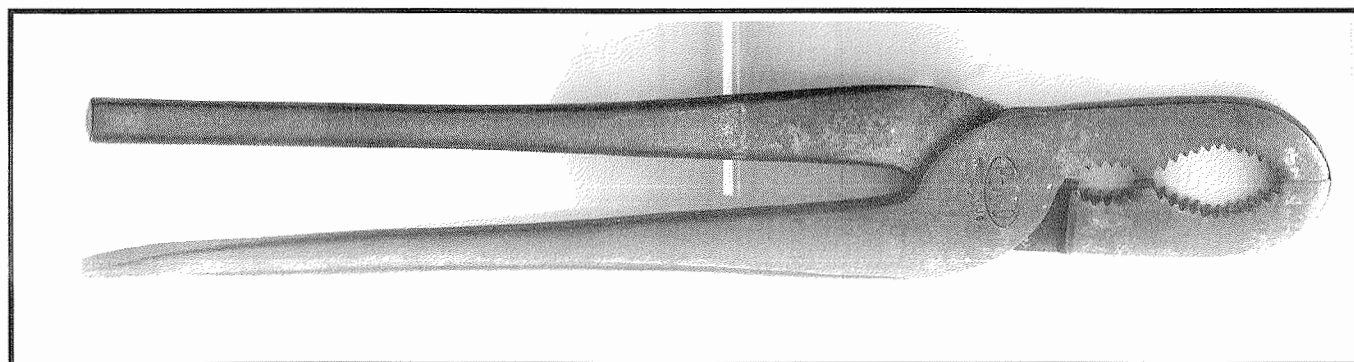
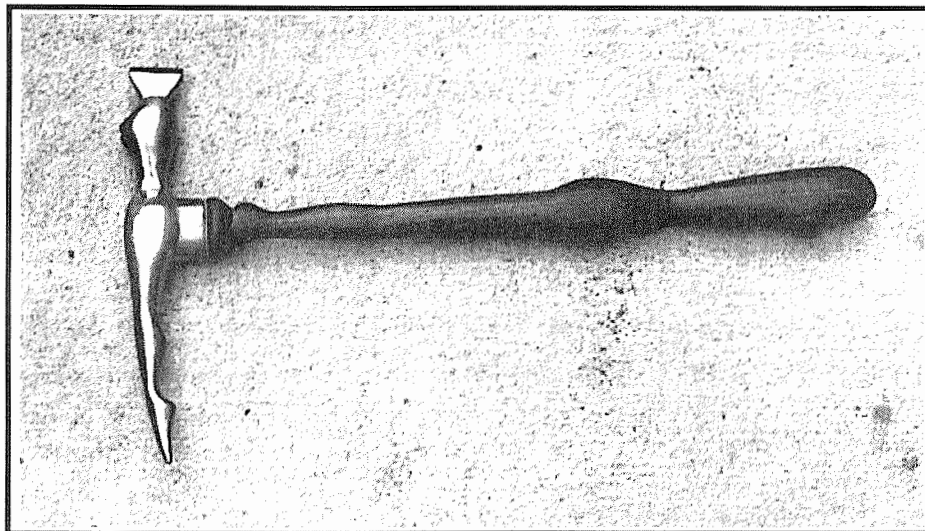
Fred H. Polson displayed his collection of miniature blacksmith tools including two power hammers at the spring joint Northern Rockies and Northwest Blacksmith Associations' conference. Mr. Polson is 72 and began blacksmithing at age 13. He has worked hot iron for the forest service, Fairbanks Exploration in Alaska, worked on a gold dredge forging 12" links, 1 3/4" in diameter, 200' to a chain. He had his own shop in Columbia Falls, MT for 22 years and leased his equipment to Fuller Web Co. when the missile silos were built in Great Falls, MT. Ten years ago Fred began making miniature blacksmith tools and equipment. These are some of his collection. All day Saturday there was a crowd around Mr. Polson's truck admiring his work.



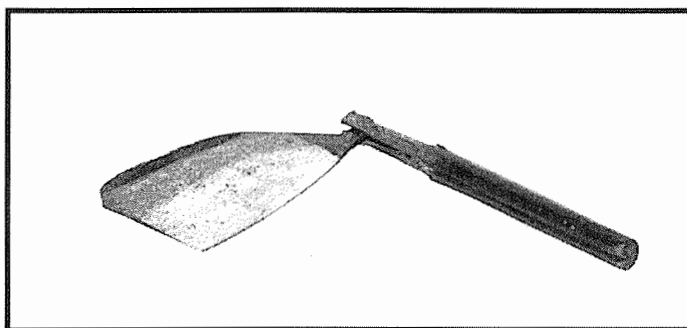
First observation appears to be tailgate sales, nope, folks are talking blacksmithing and admiring Fred Polson's collection of tools and minatures.

# "Whatsit??"

This artistic Whatsit was made by Dick Fackler years ago when he worked in a \_\_\_\_\_ shop. (You don't think I would tell you sharpies too much do you?) Dick had this on display at the joint spring conference at Dave and Babe Brandon's in Stevensville, MT.



Dave Thompson has a collection of this type of tool which he uses in his shop. It's a versatile tool around any blacksmith shop. I have three pair which I forgery welded longer reins on and use them frequently in my shop. What was the original purpose and name of this tool. Incidentally this is a Pexto brand, 12 " in length, in excellent condition bought in Connecticut after our trip to the A.B.A.N.A. Conference.



This gem is a real old time dandy. It rests in a display case in Ft. Ticonderoga on Lake Champlain in New York state. In Fort Ticonderoga the personal possessions of the famous, and not-so-famous, bring history's momentous events to life. Weapons, accouterments, maps, forged wrought iron show how people saw this place and some of the artifacts they left behind more than two centuries ago.

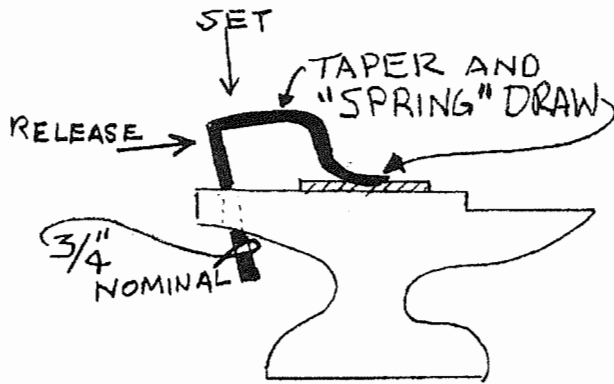
Ike Bay identified the miniature horse shoe in the last *Hot Iron News* as being made in the Williamsburg blacksmith shop, Williamsburg VA. No one has identified the other two whatsits.



# Hot Tips

## ANVIL HOLD DOWNS

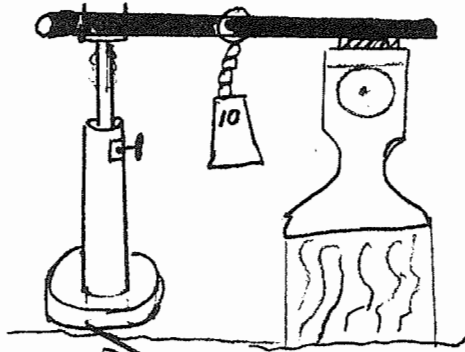
### TRADITIONAL



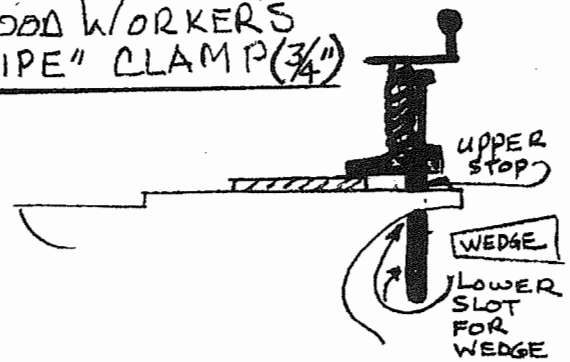
### SPRING



### DEAD MAN

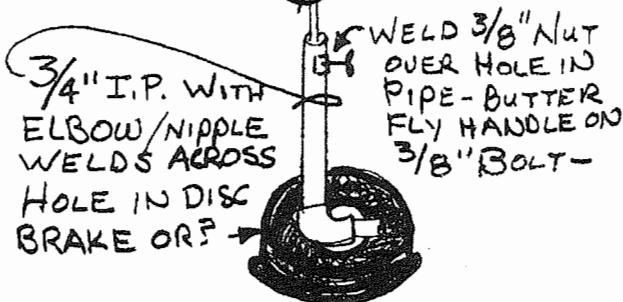


### WOOD WORKER'S "PIPE" CLAMP (3/4")



DETAIL OF "HELPER"

1/2" REBAR



By Don Kemper



# CLASSIFIED

**Boggs Tool Processing & File Sharpening Co.** [BOGGS PROCESS gives you a cleaner, sharper, longer cutting edge] 14100 Orange Ave., Paramount, CA 90723 [310] 634-1081 Outside CA [800] 547-5244 FAX [310] 634-0839 Call and ask for the FREE coupon to sharpen 2 files. **PS- I sent two files in on the freebie, it took about 7 days to get them back. I'm impressed with the tooth after sharpening. You blacksmiths can save some \$\$\$ here and we all know how dear gold is to a blacksmiths heart.**

**FOR SALE:** One lot unused hammers, hot punches, flatters, and fullers. 53 total, \$1520 plus shipping, All "USA" Mfg by Heller and Atha Tool Co. Atha Tool Co was bought out by Stanley Tool Co in 1913. Paul 360-373-4053

**Blacksmith Internship:** The National Ornamental Metal Museum in Memphis TN is seeking an experienced blacksmith interested in a two year museum internship program which has been ongoing for seventeen years. \$500 per month stipend, health insurance, workman's comp., one bedroom apartment, utilities and studio space with ample opportunities though the year for additional income through repair work and commissions.

**Artist-In-Residence/Smithy Manager Position** Full time, permanent position, \$16,500, Tuesday through Saturday. Medical insurance, workman's comp., sick and annual leave, studio space, commission and work for exhibitions are strongly recommended. Contact Jim Wallace, Director, National Ornamental Metal Museum, 374 Metal Museum Dr. Memphis TN 38106

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503-632-4366

**FOR SALE:** South Bend 10K lathe on nicely built steel bench. Quick-change feeds, 10x22 capacity, 12 speed with reversing motor. Has 3 spindle chucks, collets, face plates, milling attachment, "10-in-1" tool block, rocker tool post with 7 tool holder, thread dial carriage and cross-slide stops, micrometer carriage stop, 6" steady rest, taper sleeve, centers, die holder, live center, etc. This is a recent production, low hours machine. Lathe and all tooling in very good to new condition. \$3,700. Art Anderson, P.O. Box 631, Lolo, MT 59847 Phone [406] 273-0986 (24 hour message machine).

**Genuine Wrought Iron:** All sizes square, round, flat and fabricated bar. Made in England, contact Tim Ryan, 617-643-0158

**KNIFE BLADE STEELS:** Stainless ATS-34 and 440C Non stainless: 1084, 1095, 5160, 01, A-2 and D2 come in a variety of sizes and lengths. Contact: Admiral Steel L.P. 4152 W. 123rd St. Alsip, IL 60658-1869, 1-800-323-7055. They have a handy guide/price list and also Admiral laser cuts custom knife blades.

**WANTED:** Used anvil, 125# to 175#, give or take. Contact Larry Quaglia [503] 284-2422.

**WANTED:** 25# Little Giant or similar power hammer. Marten Stone, Brandon, OR [503] 347-9047.

**WANTED:** 25# or 50# Little Giant, 300# anvil and tools. Aziz Patel, Box 236, Carlton, WA 98814 [509] 923-2144.

**FOR SALE:** Ring roller, benders, twisters, bending dies, ornamental iron drawing system, scroll iron attachments, All new manufactured products, Send for info, Shop Outfitters, 605 S Adams St, Laramie WY 82070, 307-745-5999

**WANTED:** 25# Little Giant or similar power hammer power hammer. Martin Stone, PO Box 888 Brandon OR 97411 503-347-9047

**WANTED:** Photos of your shop, iron-work, demonstrator notes /drawings, blacksmith action pictures or anything else you feel would be useful for publication in the **Hot Iron News**. Contact Gene Chapman, PO Box 1038, Kingston WA 98346, 360-297-2495

**Trade for Surface Grinder or \$\$:** A vintage restored South Bend Lathe, 14 1/2" swing, 36" between centers, steady rests, following rest, 3 jaw and 4 jaw chucks, Shafting and clutch for overhead drive, and some tooling. In primo condition Need surface grinder and magnetic table for knife work. 360-297-2495, Gene Chapman

**Wanted** Beaudry hammer manual, setup info, etc. Carl Rauch, 804 W 5th, Coffeyville, KS 67337

**Wanted** looking for learning/part time blacksmith position in Seattle area. 206-628-6935

**For Sale:** Johnson # 122-B gas forge. Just like new, still on a pallet and has never been used. Check Centaur Forge catalog for full description. Firebox is 14" long, 4" wide, 8" deep. BTU 200,000. Price \$950. Contact Jerry Stancil, Red Mt Forge & Metal Art, PO Box 644, Benton City, WA 99320 509-588-6377

## Brooms

Handcrafted  
By  
Warren Olney

P.O. Box 1182  
Grants Pass, Oregon  
97526  
(503) 474-3575



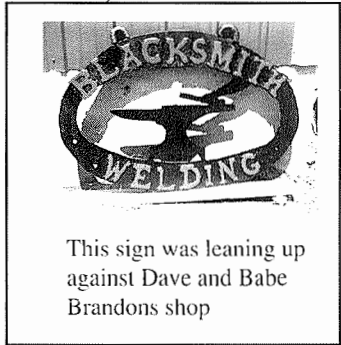
"This Broom Stands Alone"



# F. H. Polson Blacksmith

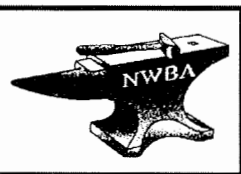


F. H. Polson displays his iron at Northern Rockies and Northwest Blacksmith Associations' Spring doings in the Bitterroot. (Pages 31-36)



This sign was leaning up against Dave and Babe Brandons shop

HOT IRON NEWS  
GENE CHAPMAN, EDITOR  
P.O. BOX 1038  
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