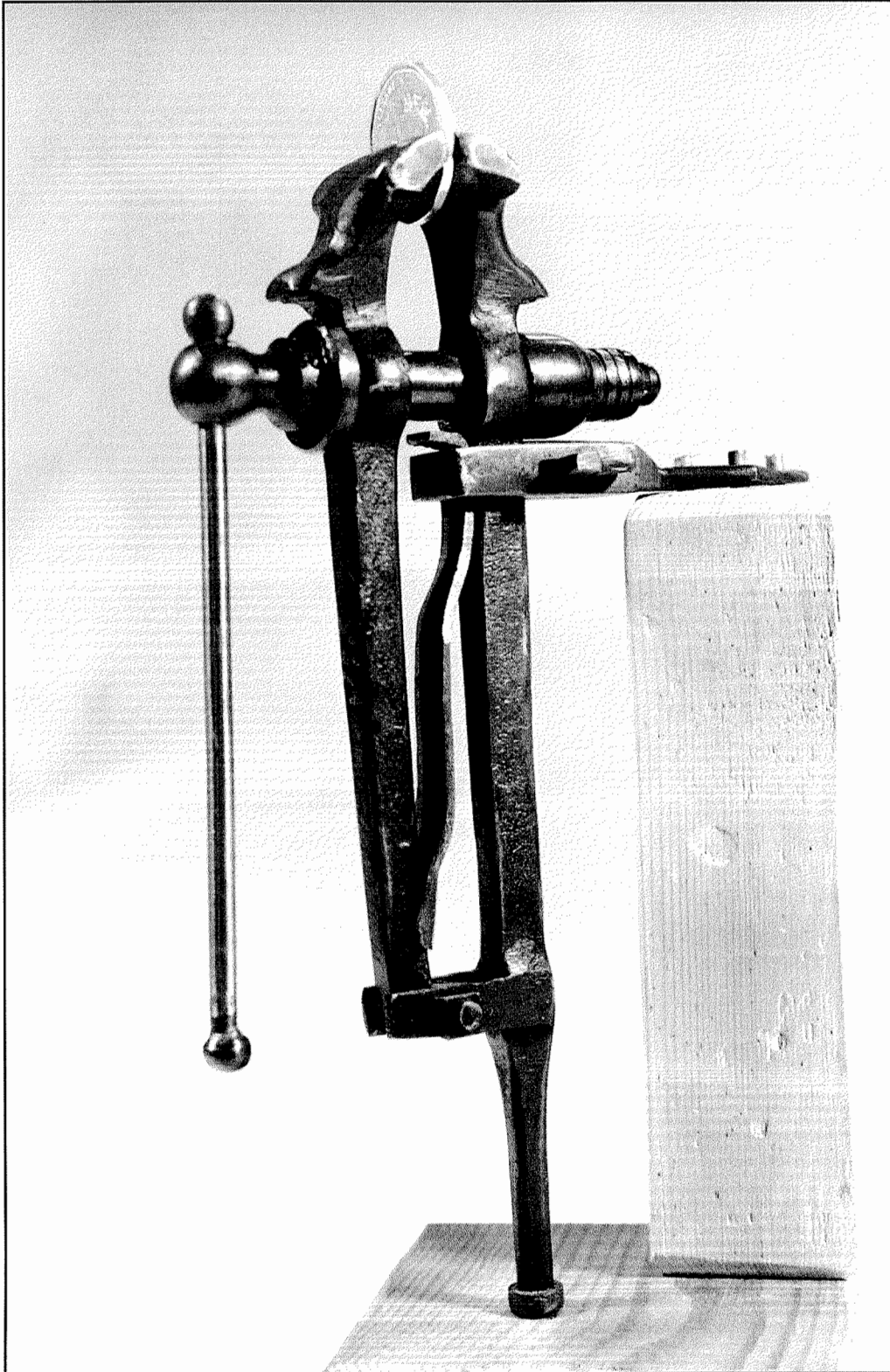


Spring 1999

HOT IRON NEWS



VOICE OF THE NORTH WEST BLACKSMITH ASSOCIATION





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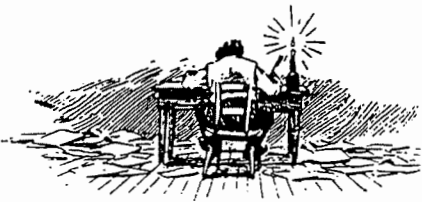
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Cover: Miniature Leg Vise by Terry Willis



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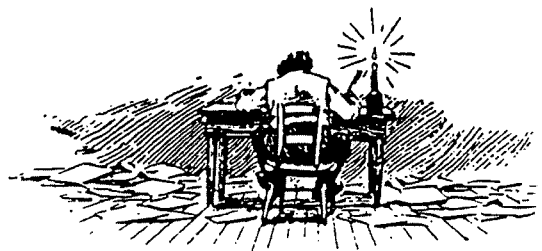
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Membership includes a subscription to the Anvil's Ring and The Hammer's Blow magazines. Regular membership is \$45, Senior (65+) \$40, Student \$35.



Editor's Notes



Uri Hofi has got to be the classiest blacksmith around. Who else do you know travels round the world with his own personal striker! This is a man who has almost single-handedly built a forged-iron industry in Israel. Kibbutz Ein Shemer is located in the dry part of southern Israel. Because of Uri's tutelage, the area now contains a number of metalsmithing shops which are succeeding. Uri is a *sabra*--a native-born Israeli--who didn't even get involved in blacksmithing until relatively late in his career. But he's made up for the lost time with a vengeance--the same type of determination and grit that the whole country of Israel has used to escape annihilation. He has now turned the day-to-day operations of his shop over to his apprentices and concentrates on teaching. He brings different smiths to the United States to give them exposure to other blacksmiths. At Asheville he and his assistant instructor, Shlomo Erel, performed seamlessly--true poetry-in-motion. As I think back on the events at Asheville, I find that my memories settle first on Uri and his mesmerizing *performance*. Demonstration doesn't begin to describe the Uri Experience. It's an experience that is extremely humorous. Uri's wit is as sharp as his hardie. Uri will have the whole weekend at Winthrop to impart his wisdom. This is a genuine treat for the N.W.B.A. This will be Uri's first visit to the Great Pacific Northwest (For Canadian members: The Great Pacific Southwest) and I have assured Uri that this will be a treat for *him*. I can't think of a better place than the rustic old Western town of Winthrop for him to make his debut!

And, once again, N.W.B.A. owes a huge Thank You to D.J. and Carol Stull for all of the organization and hard work in hosting the Spring Conference. We were last in Winthrop in the Fall of 1995 and everyone had a great time. They have planned another great event--complete with getting one of the great resort chefs to prepare the Saturday Night banquet. And, of course, we're expecting another great auction. You can usually forget it if you're after the same item as Babe "Spend-Money-Like-A-Drunken-Sailor" Brandon.

The guy hanging around the forge in Winthrop in his Planet Hollywood jacket and sun-glasses is not Bruce Willis, it's Terry Willis, who is now hob-nobbing with the likes of Robin Williams and Hollywood starlets following his *Supporting Role* in *Jumanji*! I understand he is now busy working on the props for the sequel epic, "*The Creature from the Slack Tub*." Just remember to humor him.

Back in 1899, James Hay and Frederick Budden were enjoying the peak of the anvil market. They were shipping close to a million pounds of anvils all over the world. Many of those anvils are still in use today. *Iron Age's* article on the manufacturing process, with its great graphics, captures that lost moment in time. One hundred years later, again on the eve of a new century/millennium, this previously-lost article is able to again see publication. This illustrates the enduring quality of the blacksmithing craft. Coming close to dying out in the middle of the Twentieth Century, it enters the new Millenium in an unprecedented Renaissance of interest and artistic achievement. Just look at the recent Pratt Gallery exhibition: the depth and quality of work is amazing. Hopefully, the Editor of the Hot Iron News in the year 2099 (probably the great-great-great grandson of Smedley Soapstone) will be able to pull items out of the current pages of the Hot Iron News and allow readers one hundred years from now to say, "Wow, that Wade Wade dude was really funny!" or "That Culberson guy really knew his onions!" So that this is not left to happenstance, and so that we don't have to depend on the descendants of Gene Chapman finding old Hot Iron News in the bottom of his old sea chest for our literary survival, the Hot Iron News is presently being registered with the United States Library of Congress. We'll receive a registration number and become part of the Americana collection. So. Want Immortality? Then keep those great articles and photos coming in! You never know, you might resurface (or be Reincarnated, see page 37) 100 years from now!



RAMBLINS FROM THE PREZ . . .

Thank You!

The first smiling face you meet at an N.W.B.A. conference is one of the "Blacksmith Ladies" at the registration desk (unless Kent's grizzled countenance is present, like a thorn amongst the roses!)--the ladies will take your money and they will answer any questions you have about the conference at any time. Next another smiling "Blacksmith Lady" offers to take your auction donation, tag and display it until Saturday's auction. Then you're off to find a cup of Joe and the ubiquitous sweet rolls that seem to be the favorite blacksmith fuel --yep, that's right, the "Blacksmith Ladies" make sure that the coffee, tea, juices, sweet rolls and fruit never run out--.

Stop by our archives, carefully unpacked and displayed by--the "Blacksmith Ladies." They will catalog the new demo pieces and--yes--repack our archives carefully at the shows end. Questions on the gallery items, T-shirts, sale items or ??? . . . back to the registration desk you go--do they have the answers? Where do you think that I go with my questions? And when they say, "Jump!", I just ask, "How High?" and "In what Direction?"

As Saturday night draw near, they oversee our dinner set-up and work with the caterer to ensure our comfort--And get ready for the auction--**THINK ORGANIZATION!**--The auction is smooth!--It's fun!--and there never is a question--except, "I know I bought all these items, but I spent how much??"

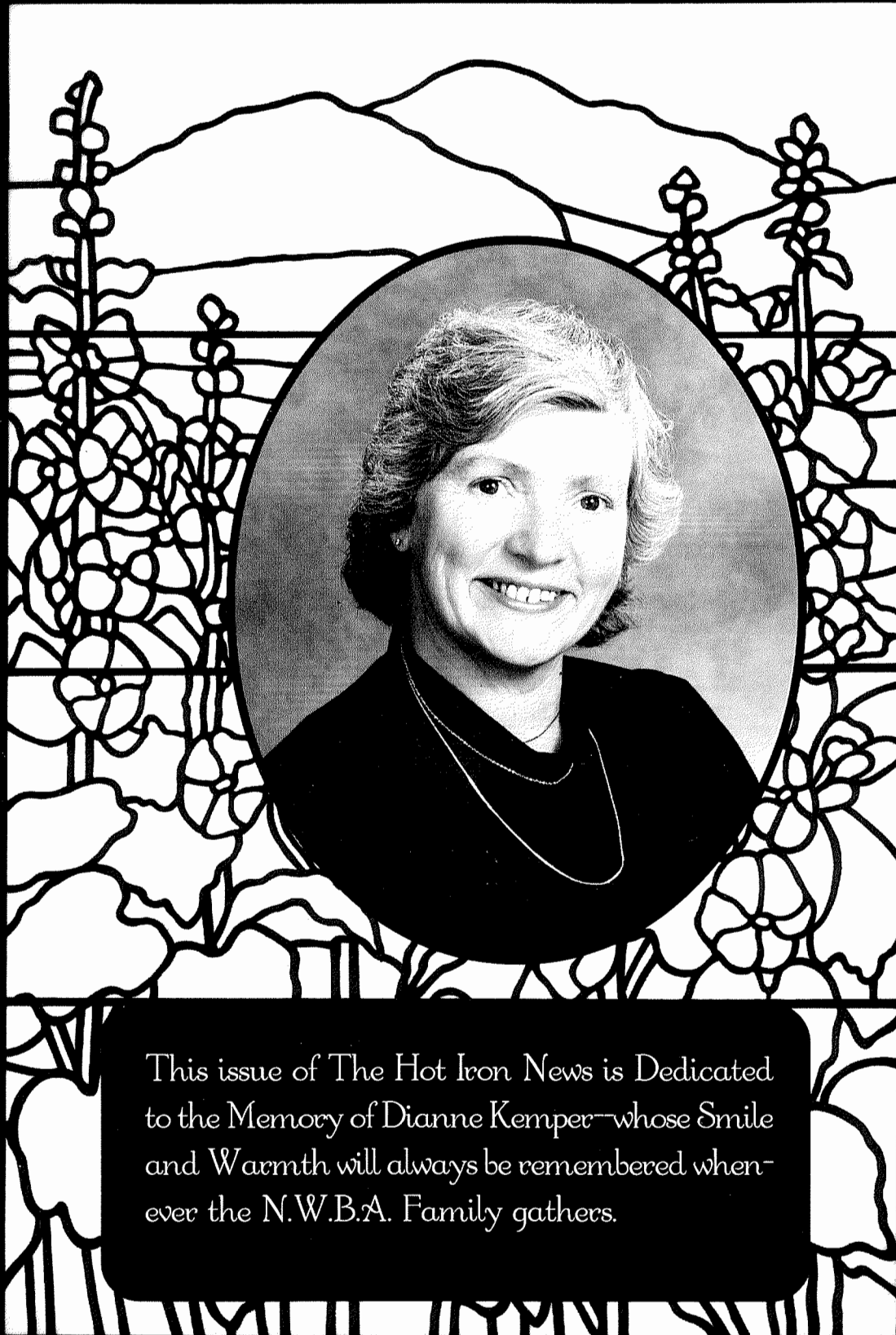
Sunday you pick up your reserved library items and pay, yes, the "Blacksmith Ladies"--while they tally and close the registration desk--pack the archives--and set out a lunch from Saturday night leftovers.

So, "Blacksmith Ladies"--our **SINCERE THANKS**--as we tip our hats to you, raise our glasses and (All Together!!!): **HIP HIP HOORAY! HIP HIP HOORAY! HIP HIP HOORAY!!!**

And for that special "Blacksmith Lady" who gave ME her complete love and support--

DIANNE KEMPER

January 4, 1938 -- January 20, 1999



This issue of The Hot Iron News is Dedicated to the Memory of Dianne Kemper—whose Smile and Warmth will always be remembered whenever the N.W.B.A. Family gathers.

Remembering Dianne

by Babe Brandon

What do you say when you lose a dear friend? Just remember the great times that you had with her? Oh yes, and we have had many good times. The first time that I remember Dianne was at St. Helen's Fall Conference 1993. Dianne came and helped us out in the kitchen. We were always happy to have help and one who always smiled sure was enjoyable. That started a long friendship with Dianne and the rest of the ladies of NWBA.



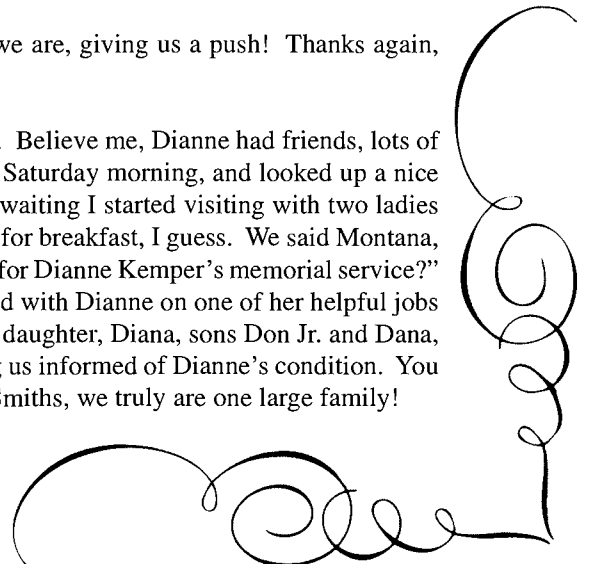
Babe and Dianne

It's fun to remember the good times that we spent going shopping Friday morning or Saturday morning before too much stuff got going and they needed us. Dave took in an Animal Head Work Shop at the Kempers. I spent my time with Dianne. We went to town shopping, prepared meals for the men, served them and, yes, cleaned up after them. No matter how much dirt they brought into her home she would just give that big smile and say, "Just boys in men's clothes!" What can you say?

We always enjoyed getting together and after she had made one of her great trips to visit her daughter Diana we always sat waiting to hear all about her escapades. Another time I got to work real close with Dianne at the 1997 Fall Conference held at John Loeffler's New Blue Moon Studios, Peshastin, Washington. Three of our gals were not able to attend so that kind of left us short-handed. This didn't bother Dianne at all. She just put herself down and started working. We all tried to do our part and believe it or not it worked. If I saw that Dianne's face started to get a little red I'd go over and try to slow her down to a slow run. At least I had fun working with Dianne.

I'm sure, fellow Smiths and Ladies, that Dianne will be with us wherever we are, giving us a push! Thanks again, Dianne, for everything you so openly gave to us all.

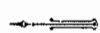
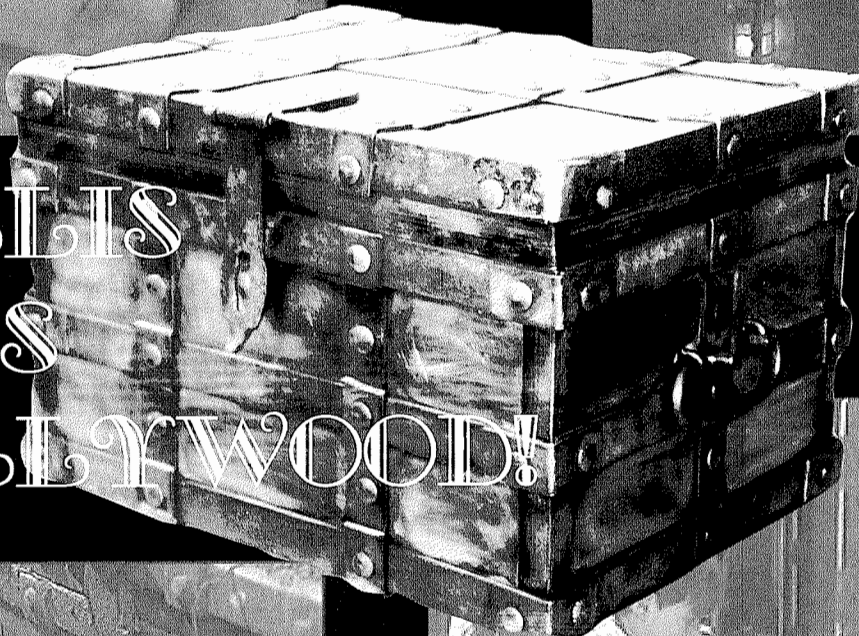
We were able to attend Dianne's memorial service in Vancouver, Washington. Believe me, Dianne had friends, lots of friends. I have to tell a short story. Dave and I got to Vancouver about 11 a.m. Saturday morning, and looked up a nice small restaurant downtown. We had to wait several minutes for a table. While waiting I started visiting with two ladies that came in ahead of us. They asked us where we were from, little over-dressed for breakfast, I guess. We said Montana, come for a memorial service. The older lady said, "Are you all the way over here for Dianne Kemper's memorial service?" We said, "Yes, she was a good friend." The lady then told us that she had worked with Dianne on one of her helpful jobs on the election board. What a small world we live in! We got to meet Dianne's daughter, Diana, sons Don Jr. and Dana, and some of her grandchildren. Thanks Don, Mary, Dennis and Kent for keeping us informed of Dianne's condition. You made us feel like we were part of her last days with us. Just remember, fellow Smiths, we truly are one large family!

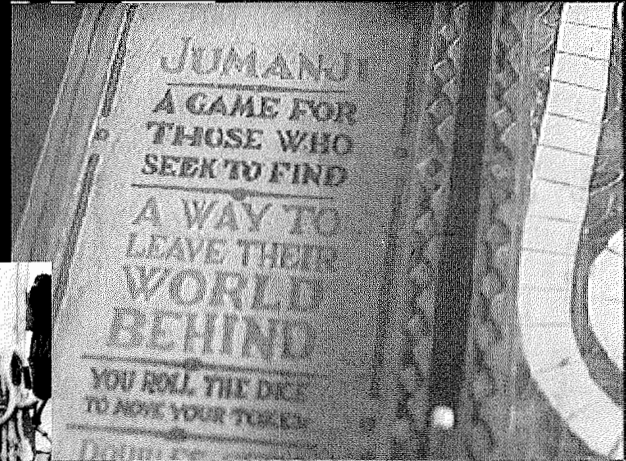


JUMANJI



WILLIS GOES HOLLYWOOD!





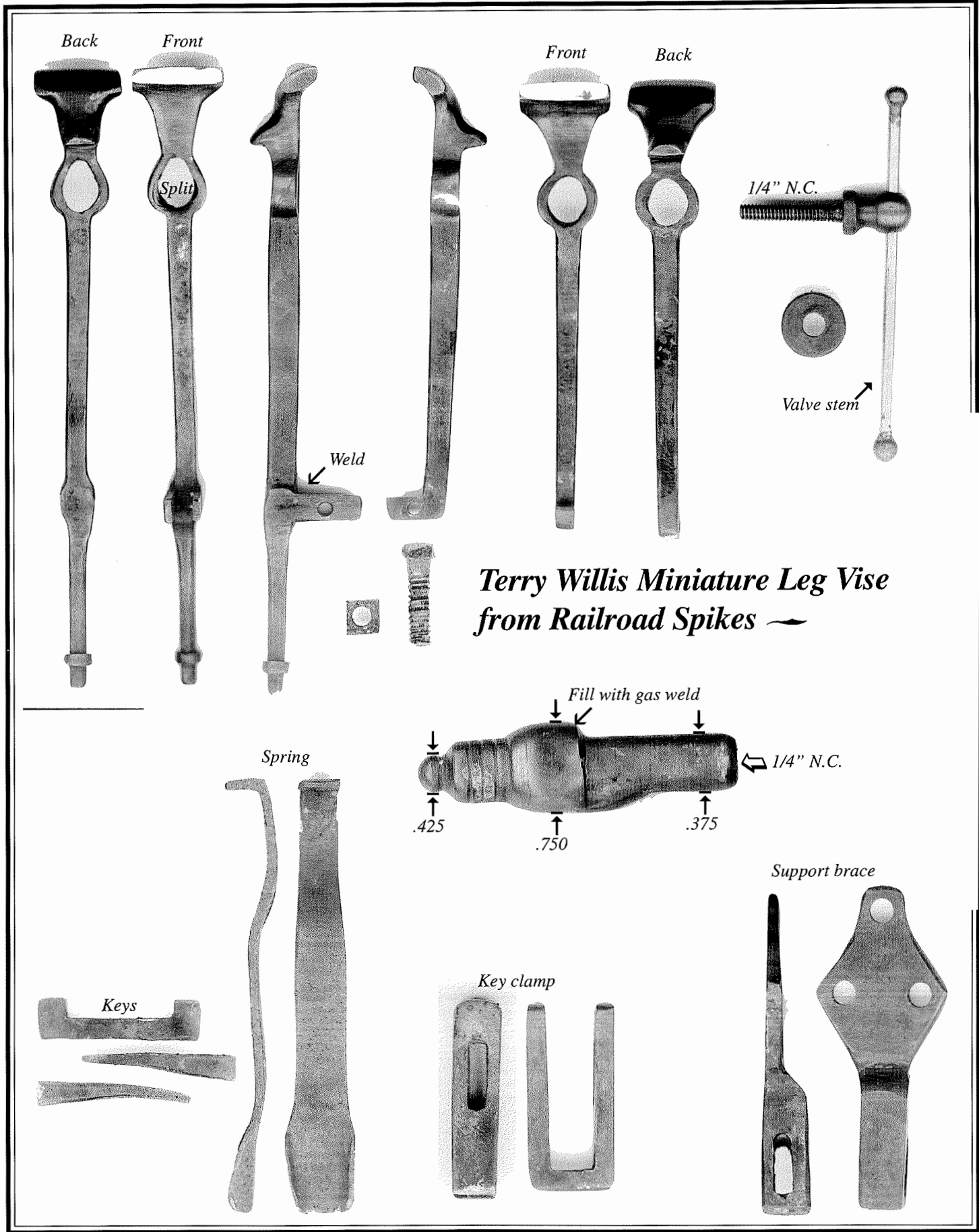
NWBA MOVIE MOGOLS

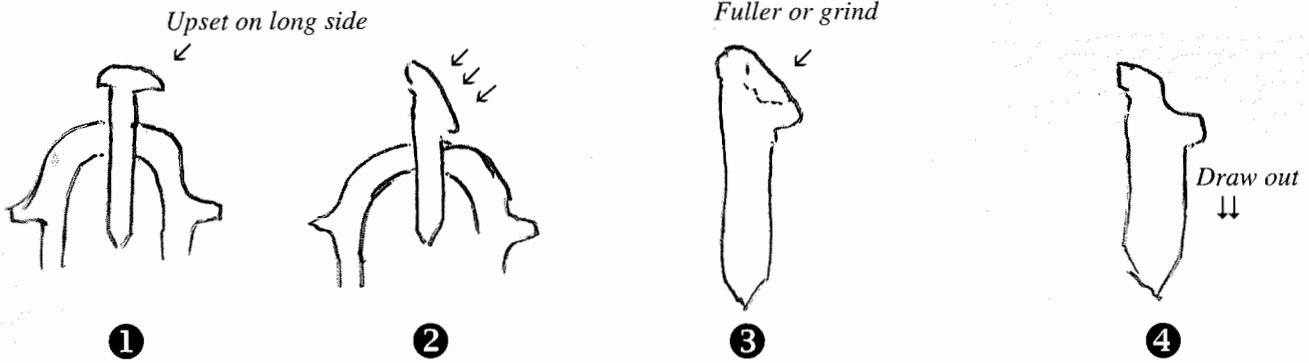
Scott McIssac & Terry Willis

With Their Jumanji Trunks . . .

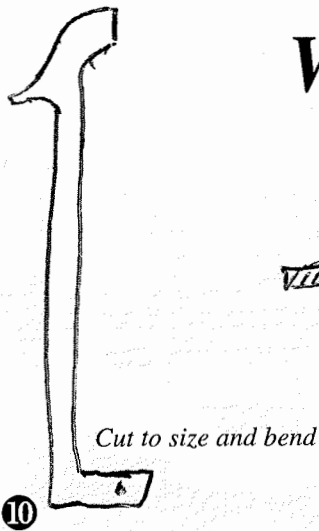
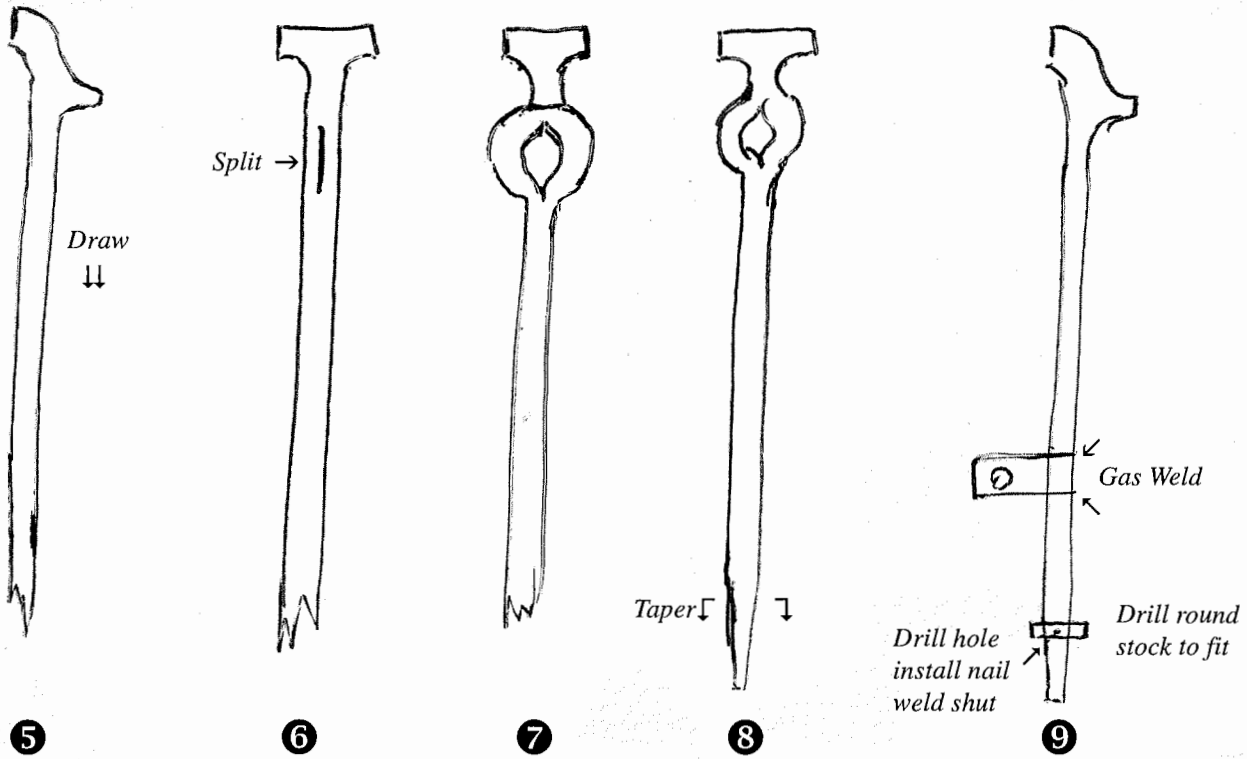
In the movie *Jumanji*, starring Robin Williams, young Allan Parrish digs up an old chest containing an ancient game which wreaks havoc on the family's home and town. The house floods with water and alligators and a stampede of elephants and other jungle animals come bursting through the walls. Vintage Robin Williams and a great adventure. And where did those treasure trunks come from? From none other than our own Canadian Movie Matinee Idols Scott McIssac and Terry Willis! The movie, which was filmed in Vancouver, B.C., specified that the trunks be ancient and that the fittings be out-of-square. The Silver Screen Smiths built two identical trunks and were asked to do a third but two were sufficient. Since this job, Willis refuses to take off his sunglasses, only answers to "Bruce," and is starting to talk like Jack Nicholson. Is there an Oscar for Best Prop?





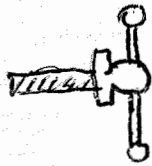


Make three or four and find the best one

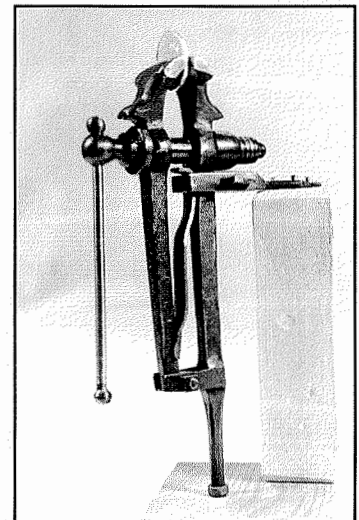


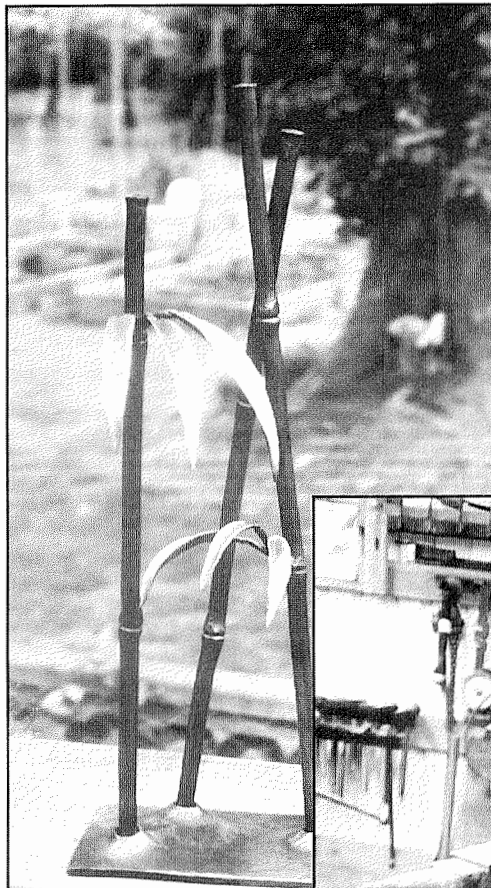
Willis Leg Vise

Make round pieces in lathe



Valve stem handle. Gas weld one side. Put in drill, file ball. Insert through hole and gas weld. Put in drill, file other ball.



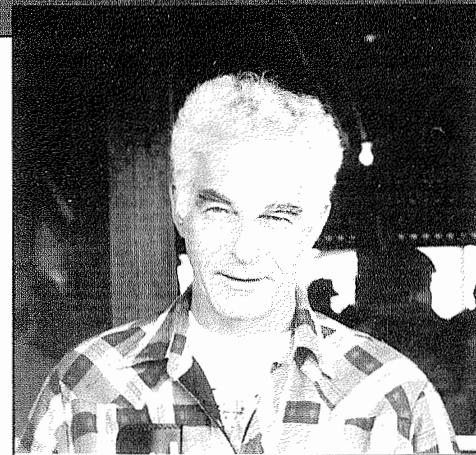
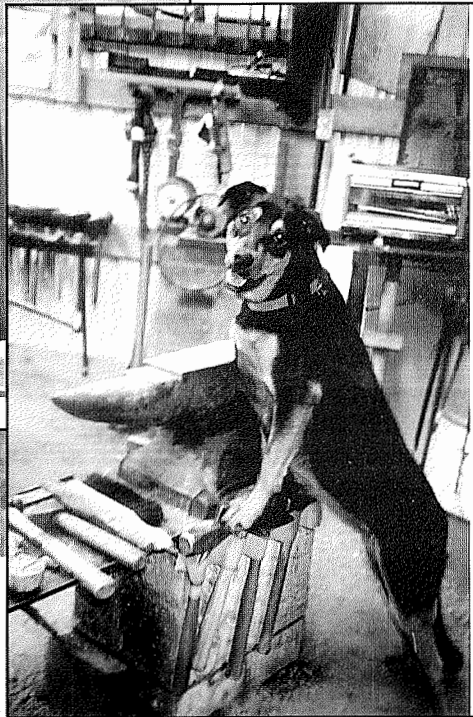
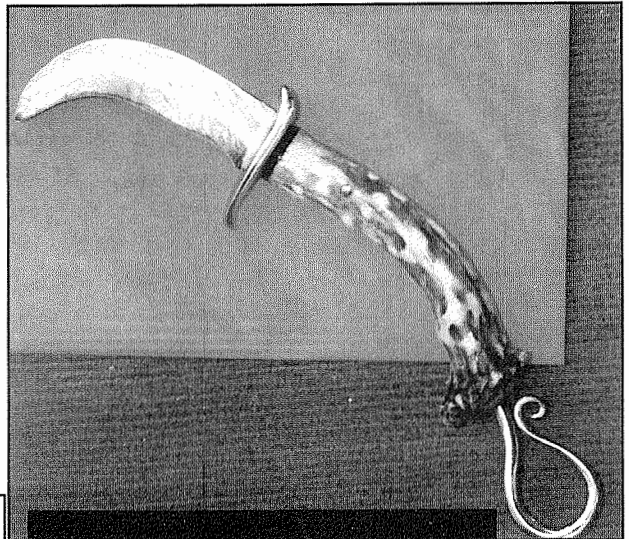


Left. Bamboo for Tai Chi teacher.

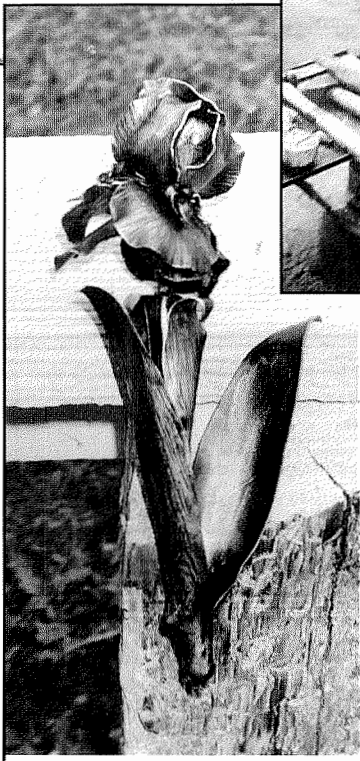
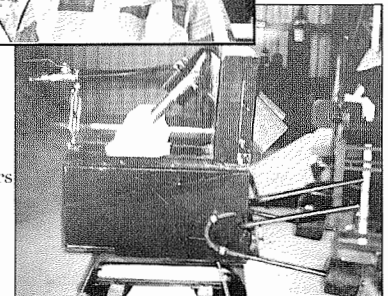
Right. Lineman's Knife

Below. Sassy the Anvil Guard at Alder Forge

Terry Willis
Alder Forge
27224 River Road
Langley, British Columbia
Canada V1M3L7
(604) 856-8580



Modified ABANA
forge with two doors



Iris for Friend

My Addiction to Blacksmithing all started with a second-hand book. "Modern Blacksmithing." Then came discovery of a blacksmith shop on the Seattle waterfront (Jack Slack?), who introduced me to the N.W.B.A. After two basic courses, one on blacksmithing and the other on knife-making, at the Old Cedar Forge, I was hooked!

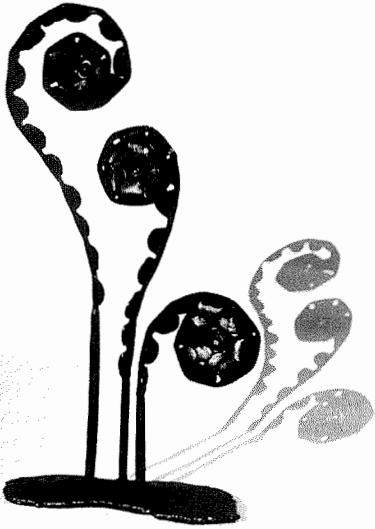
About six months into it I went through a frustrating period. Every time I went to make something I needed another tool, swedge, fuller, butcher, etc. Later you discover that there is more than one way to do the job and you didn't really need that expensive tool after all . . . but we won't tell the wife. "Yes, I really do need the trip hammer, Dear!"

I do blacksmithing as a hobby and find that it keeps me relaxed. I'd like to thank all the members of the N.W.B.A. for all the input and help whenever I asked . . . and some-times even when I didn't!

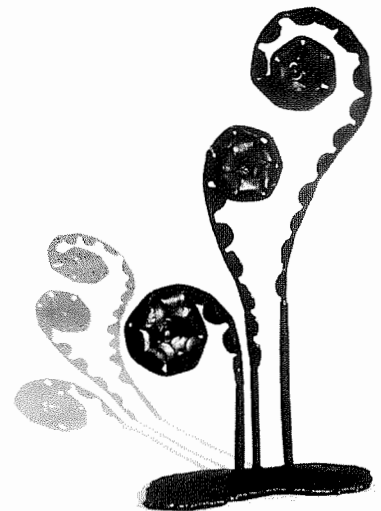


Eric Ziner

Our Maine Man . . .



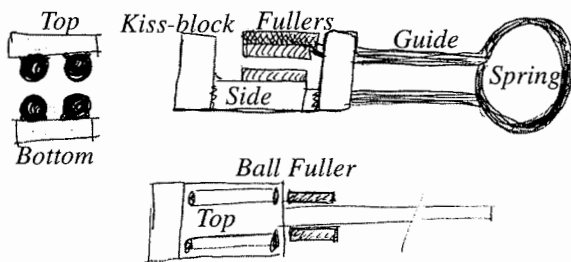
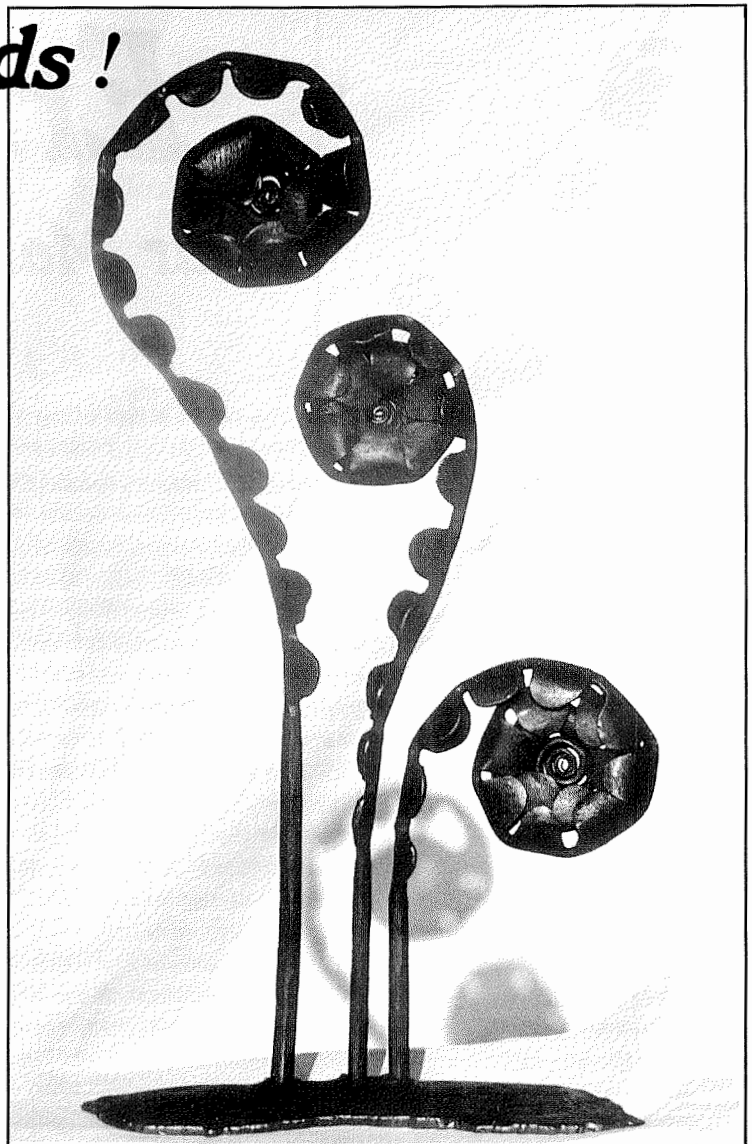
an N.W.B.A. transplant to Deer Isle, Maine, Eric haunts the coastal bogs and shores absorbing nature's art and translating it into organic masterpieces. From fiddlehead ferns to whimsical furniture pieces-- it's guaranteed to catch your attention! . . . and he's sharing some cool shop tips!



Acadia National Park, Maine

Oh, Fiddleheads!

To forge the fiddleheads, I start with 1/2" round stock, about 30" long. I taper a point about 7" long that gets scrolled into the center. With a double fullering tool, as pictured, I work the length of the bar, keeping the piece straight and only working it at an orange heat. When the length is determined, I fuller out the lobes from both sides of the centerline trying to keep them equal. The first four or five lobes are left smaller, the remaining lobes are drawn out full size. I can do four or five per heat in the coal forge, but with the right tooling I imagine you could do the whole strip in one heat! Then I flatten out the strip, and swage it into a "U" shape with a top and bottom swage, moving it slightly with each blow. Then I scroll the spiral tip as tightly as I can with a rounded needle nose. The rapid cooling prompted me to rest both the scroll and the pliers on the edge of the forge so that I wasn't waving around the small hot spiral and it steadied my hand for better control. After starting the scroll, bend the radius of the finished scroll ahead, then snug up the heated length as it seats against the former spiral. Then start to roll up the lobes and the smaller size of the first few lobes will be evident, for if they were full size they would have obscured the inner spiral. Taking care not to overlap the previous lobes, try to keep the spiral in line and not entrap coal while tightening it up. With about a third of the length left not in the spiral, draw out the stem and form the curve over the horn of the anvil. Curving the metal on the diagonal surface of the anvil horn produces a whole range of natural curves that make transitions and sweeps that are helpful when creating the ends of arcs. Keeping in contact with the surface to back up the work, form a smooth reverse arc, alas the emerging stem. Finish with a wire brush and hot wax treatment.



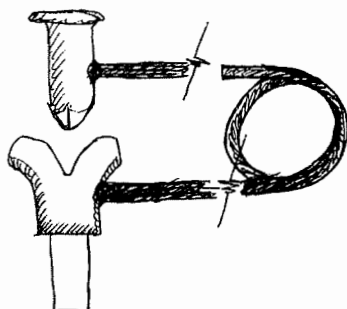
This spring fuller sets into the die block mounting hole. The Flat dies in the hammer bottom out on the kiss-block--which leaves the desired thickness of material between balls.

--flat strap bent into a "U" acts as guide to align dies.

--used to make balls in a row



--saw my first ball swage at Dave Thompsons on his 25#er. It clamped on top and bottom dies with bolts.

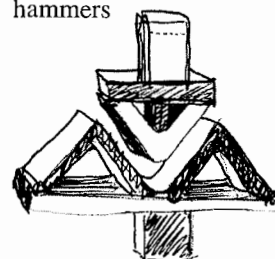


Swaging tool to form "U" channels, all edges round and smooth.

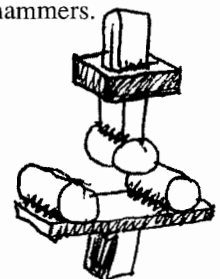
--bottom is truck axle, forged to quick taper, then split as suggested by Clifton Ralph



90° bender made from angle iron for treadle hammers

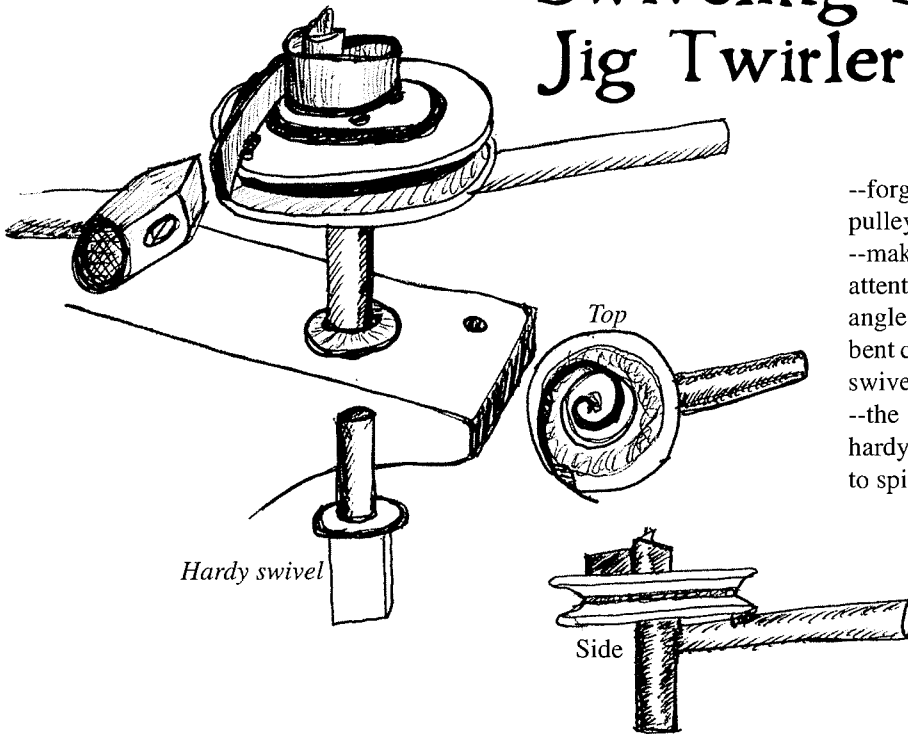


Bending dies out of round stock for treadle hammers.



Ziner . . .

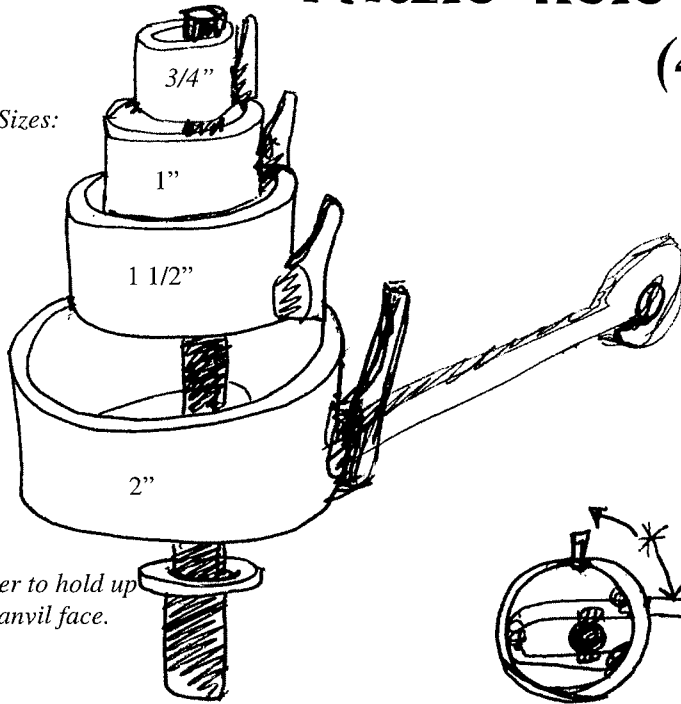
Swiveling Scroll Jig Twirler



--forge scroll, weld onto base (I used a fan-belt pulley)
 --make handle from pipe, weld under base with attention to location. Handle should be at right angles to the last 1/4 turn, as this is usually bent cold, and you need the leverage (3" above swivel will clear hammer.)
 --the base swivels on a shaft welded to anvil hardy size, a large washer provides the surface to spin on.

Pritze hole hook jig (4 sizes)

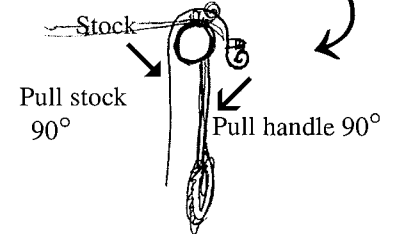
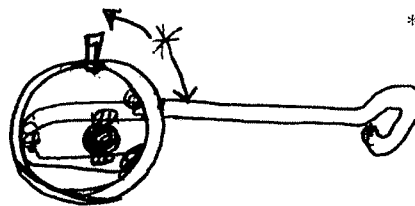
Pipe Sizes:



Make chucks from 3/16" x 1/2", weld to side of pipe (the taper will allow various point sizes to fit, and hold as hook is turned.)

* Position handle 90° from chucks, then shafts align after bending.

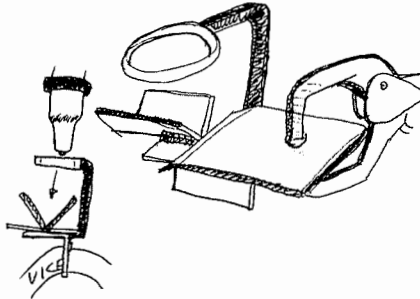
Washer to hold up from anvil face.



Bottom pipe with handle in position to support shaft in center (bend into a "U").

Ziner . . .

mig torch holder

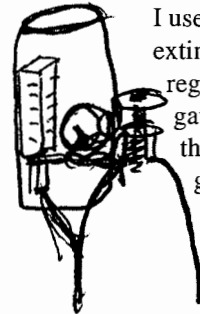


Is for welding small rod to sheet. Ring holds mig nozzle at proper distance for the weld. Angle iron cradles rod. It was suggested that if weld area was made of copper it would act as a heat sink resulting in better penetration. Iron worked fine.

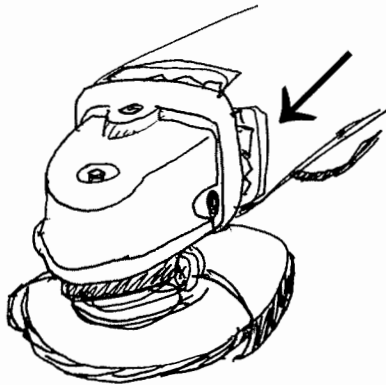
gauge protector



Cut plastic soda bottle in half. Invert. Cut around obstructions.

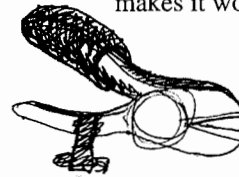


I use these on my fire extinguisher, mig regulator, oxy/acet. gauges, etc. to keep the sparks (from grinding) from pitting gauge.



I have taped up the side vent port on my grinder, which always blew dust in my eyes. Even with safety glasses the blast of wind always caught me by surprise. I was paying attention to the grinding, not the vent. This probably won't affect the cooling of the tool since its not run for that long but for the safety angle its a real bonus.

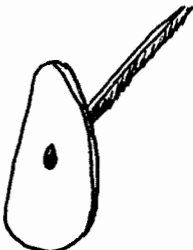
After while looking for the snips resulted in welding a pair onto the edge of the bench. I put a spring on to keep them open and slipped a radiator hose onto the top handle. Every snip makes it worth the trouble.



Spring shape

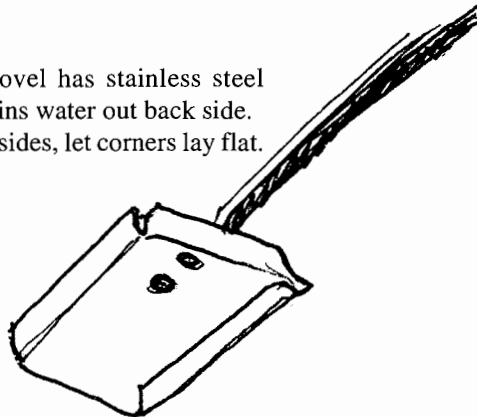


Straight



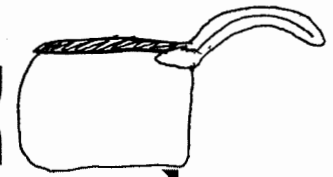
Forge poker matches shape of firepot (mine's round). 1/8" thick.

Coal shovel has stainless steel pan, drains water out back side. Fold up sides, let corners lay flat.



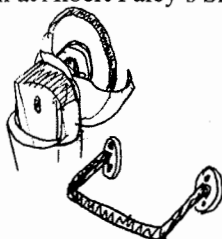
"Al Bart's, CBA" Forge Tender.

Shape of Firepot Bottom

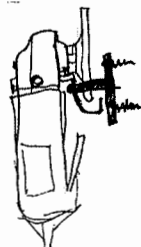


Corner to scrape out along edge of forge top.

Small grinder hang-up racks. As seen at Albert Paley's Shop . . .



Onto plywood walls, benches . . .

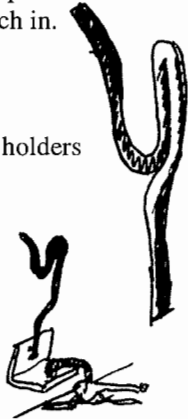


. . . or on a pole.

Ziner . . .

Y shape with one side longer to guide torch in.

Nozzle holders



Small trailer rim

Mig nozzle



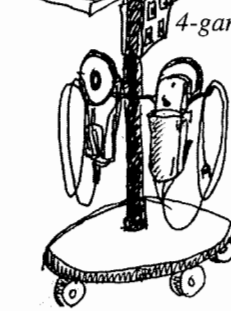
As seen in Albert Paley's Shop.

I made a roll-around stand that holds grinders, flex shaft, rheostat, a disk and wheel rack and outlets.

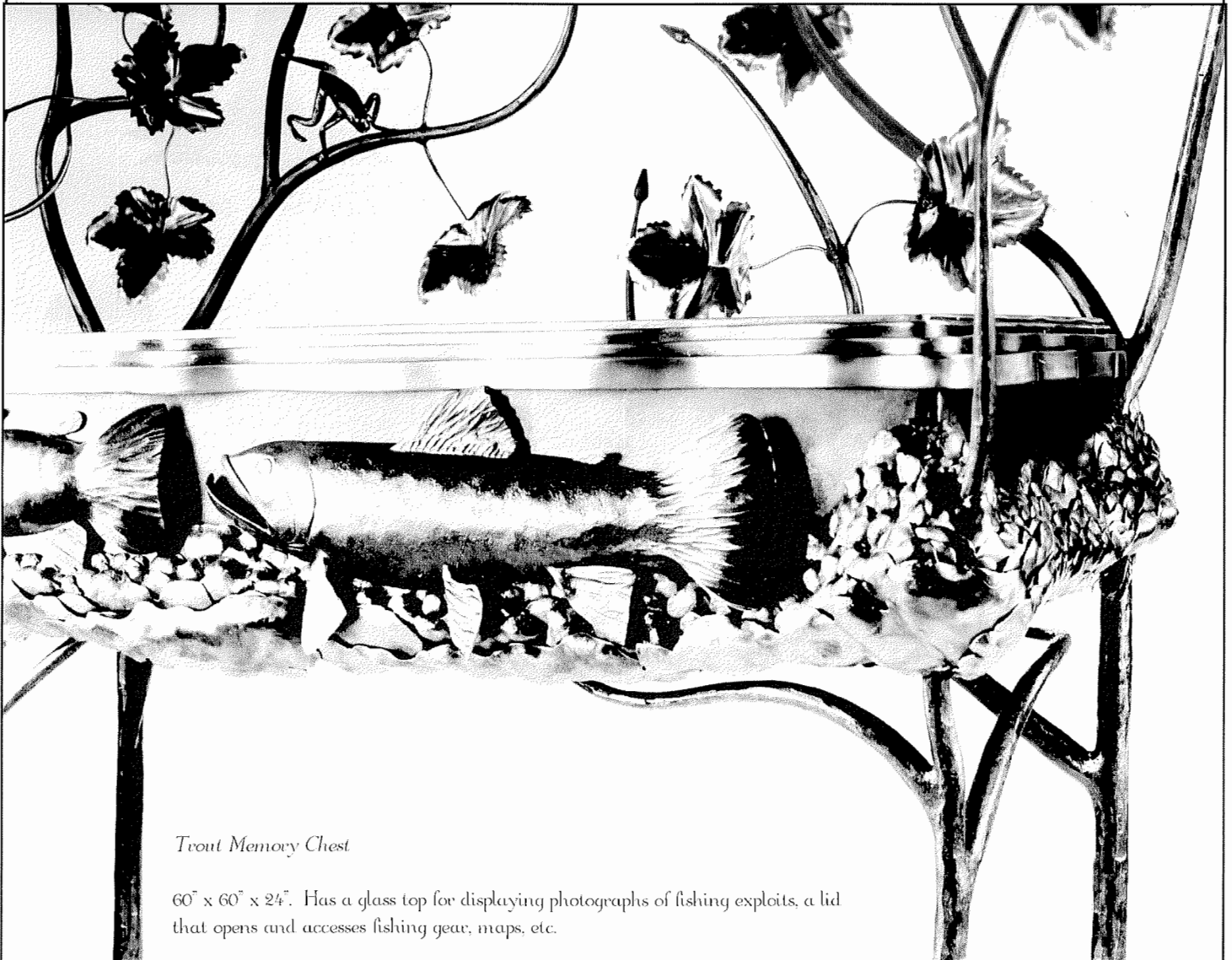
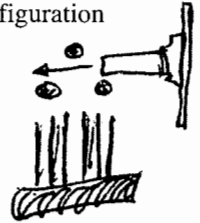
Mounted wheels (1/4" shafts) stuck into 3 aligned kitchen stove racks--held by the over/under/over

Rheostat

4-gang plug



Weld together in this configuration



Trout Memory Chest

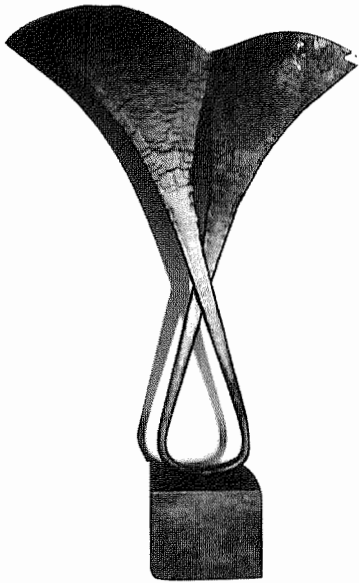
60" x 60" x 24". Has a glass top for displaying photographs of fishing exploits, a lid that opens and accesses fishing gear, maps, etc.

HOT IRON IN JANUARY

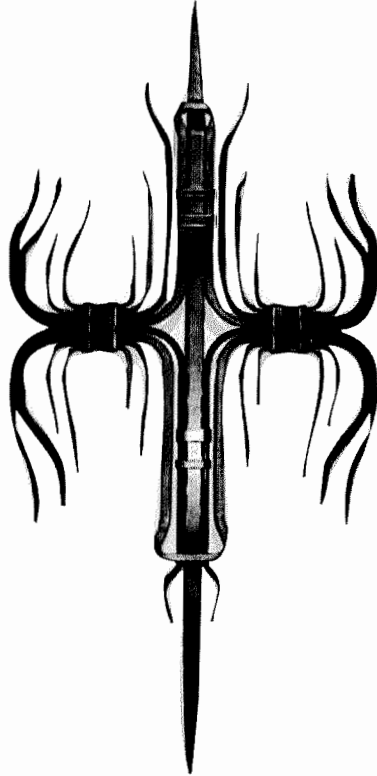


THE PRATT GALLERY SEATTLE

JANUARY 7 - FEBRUARY 13, 1999 CURATED BY JUDITH AND DANIEL CALDWELL AND JEAN WHITESAVAGE



WING STUDY RUSSELL JAGUA



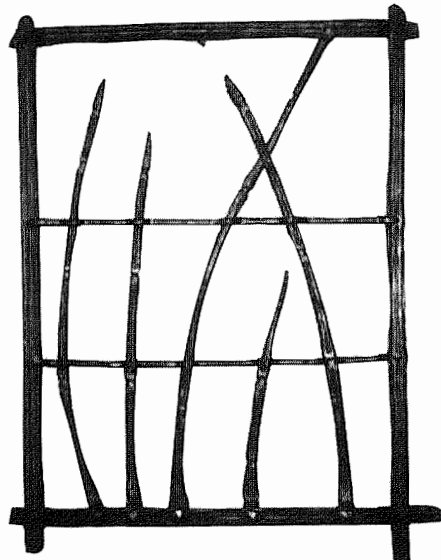
WALL SCULPTURE DAN SCHWARZ



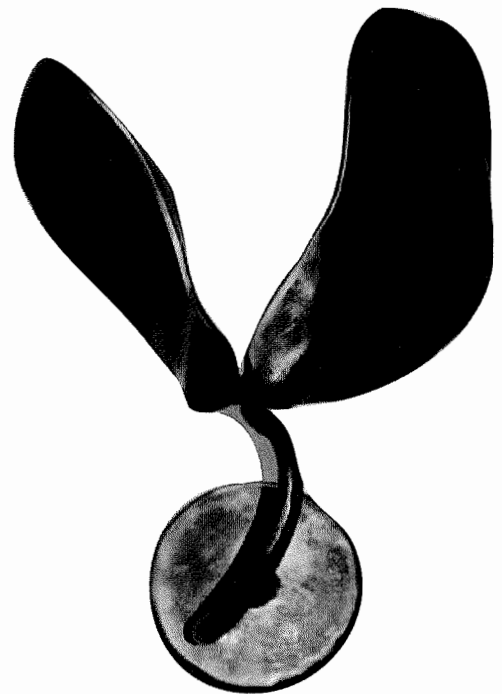
POD AKA JANE DOE DYLAN ANDERSON



BONE SCROLL JEAN WHITESAVAGE



ASPARAGUS GRILL PHIL BALDWIN



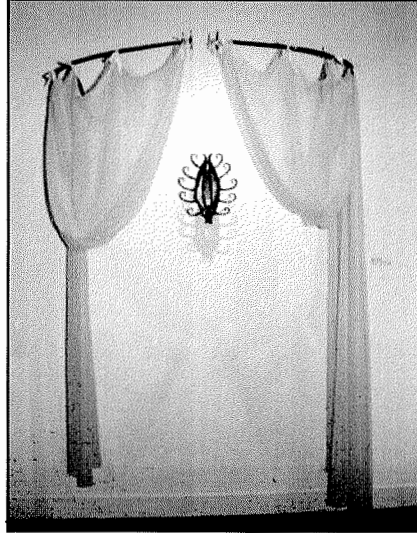
SCARED RABBIT JEAN WHITESAVAGE

PHOTOGRAPHY BY JUDITH CALDWELL

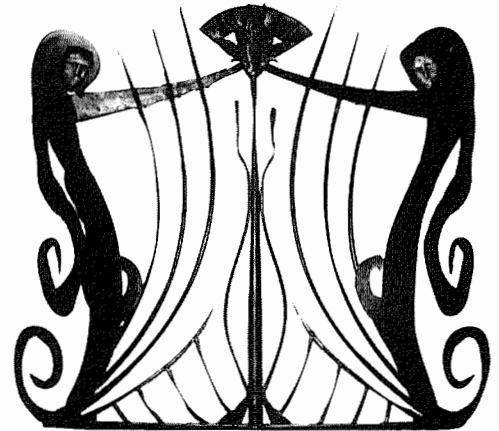




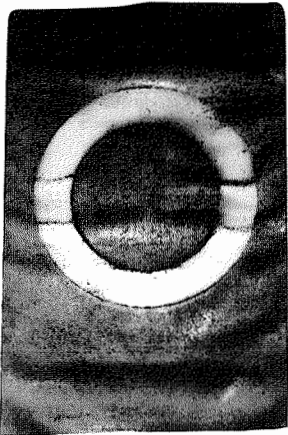
ORGANIFY SCOTT SZLOCH



BEGIN SHANNON BUCKNER



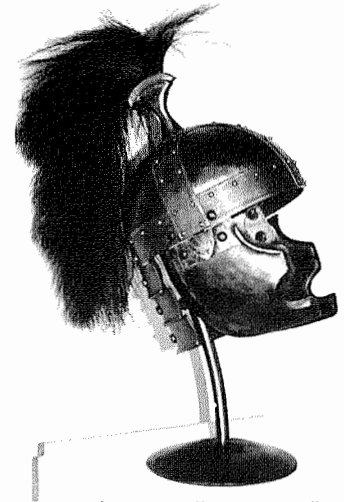
LAUREN OSMOLSKI



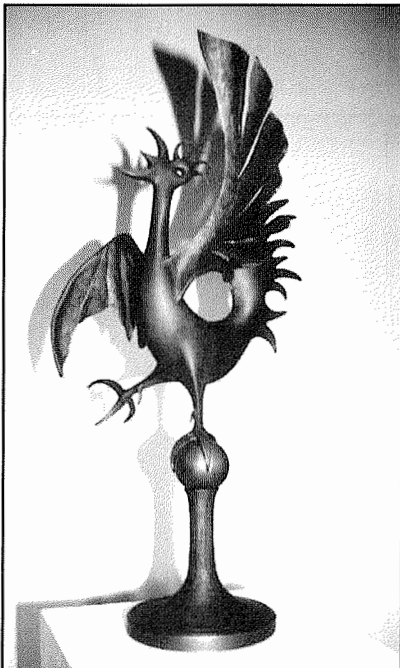
ETERNAL NORN TAYLOR



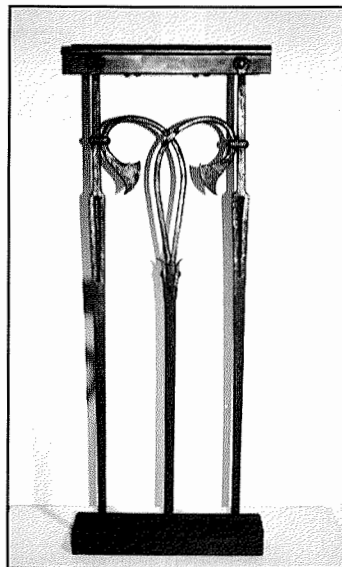
SNAKE JEAN WHITESAVAGE



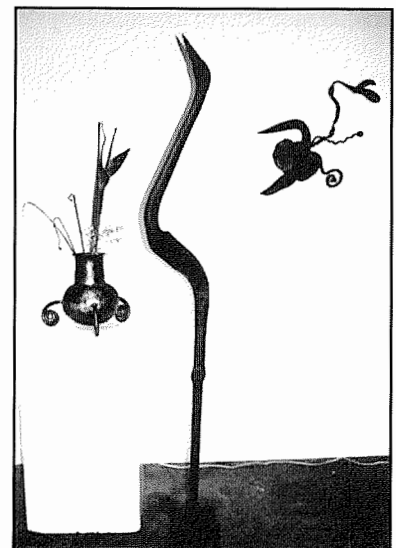
SPANGENIEM HYBRID DAVID TUTILL



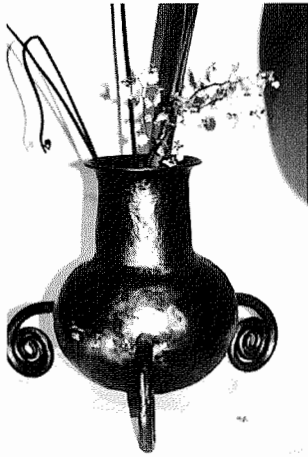
PUFFY CHICKEN DYLAN ANDERSON



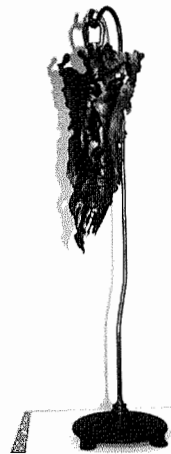
RAILING SECTION L. JAPILITH HOWARD



BIRD SPIRIT STICK RUSSELL JAGUA



VESSEL NICK LYLE



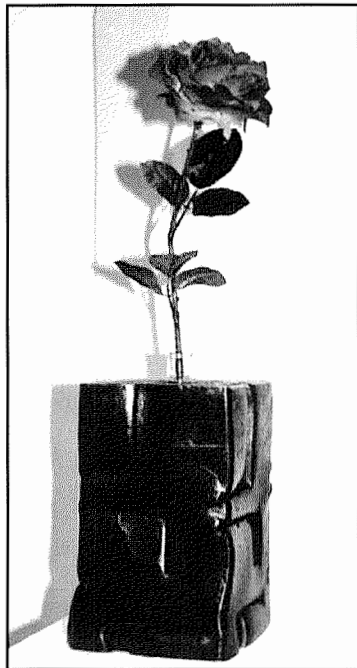
FRAGMENT OF CHRIST WITH STITCH
LAUREN GROSSMAN



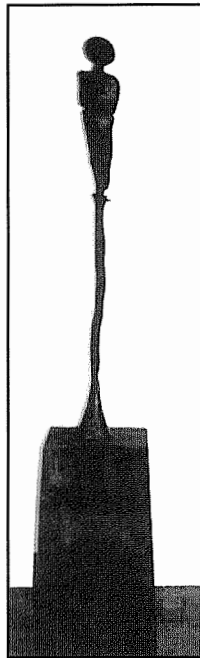
CHALICE DAVID TUTHILL



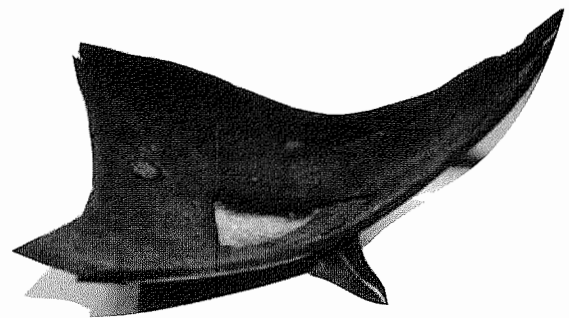
A BUD VASE CALLED BUBBA JERRY CULBERSON



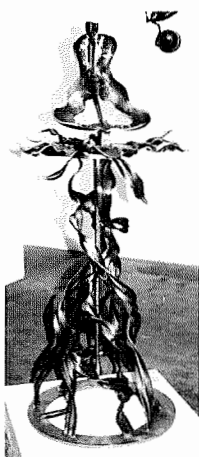
A BUD VASE CALLED BUBBA WITH FLOWER
JERRY CULBERSON



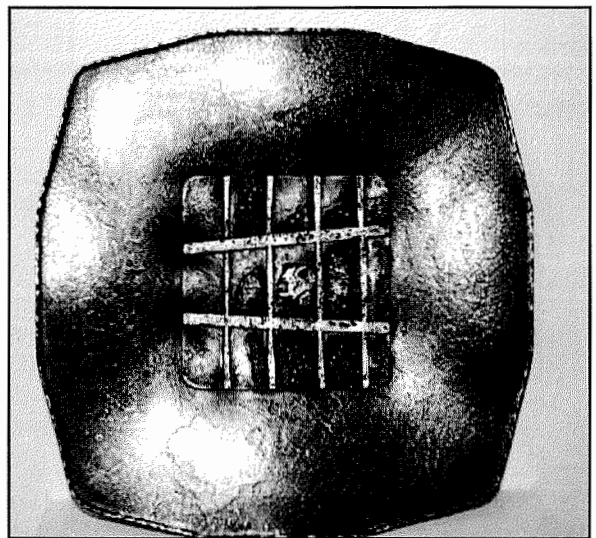
RELAXED FOCUS CHARLES F. MEYER



3-COMBUSTION PHIL BALDWIN

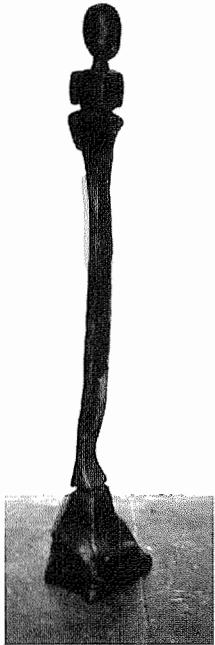


MOTHER SCOTT BARTEL

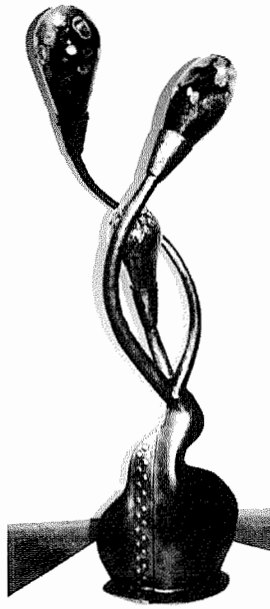


FORGED STEEL BOWL SCOTT SHADDOCK III

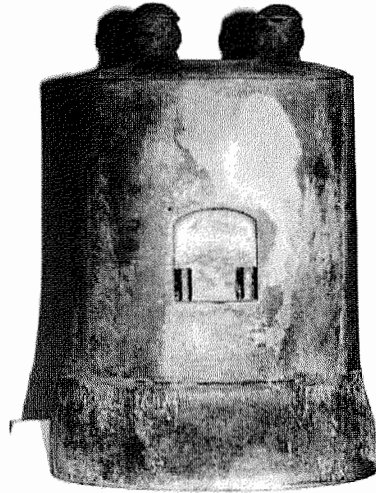




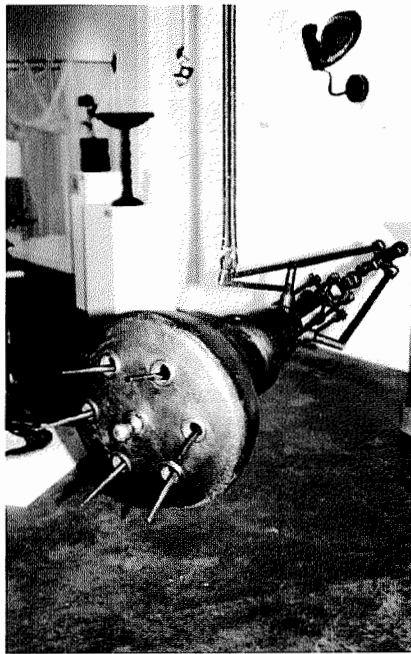
TENSILE CALAM CHARLES F. MEYER



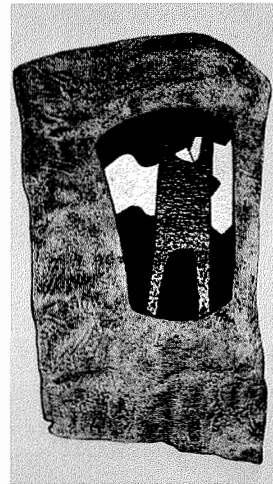
FLOOR LAMP SCOTT SHADDOCK III & KELLY J. MCCLAIN



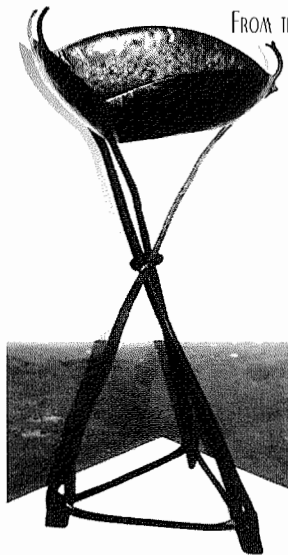
LURA GRIFFITH



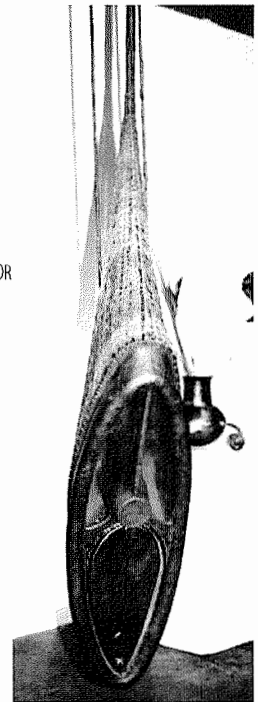
SALT VAUGHN RANDALL



FROM THE LIFE & DEATH SERIES NORMAN J. TAYLOR



TRIPOD WITH BASIN MICHAEL A. NORTHROP

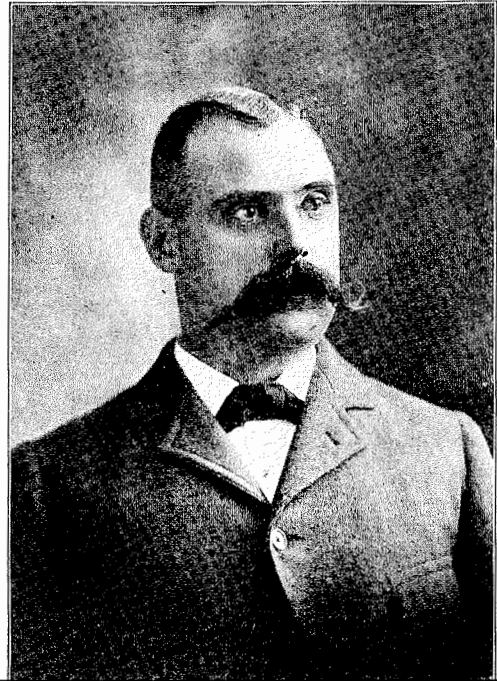


MOOK VAUGHN RANDALL

CONTINUED ON PAGE 47 . . .



James Hay



Frederick C. Budden

HAY-BUDDEN: ALL AMERICAN ANVILS!

From The Blacksmith and Wheelwright, January Edition, 1899 . . .

Historical Sketch of an Enterprising Concern

Not many years ago the solid wrought anvils used by American blacksmiths were all imported. It has been since demonstrated, however, that wrought anvils could be produced in this country not only equal but superior to many foreign-made anvils. The Hay-Budden Manufacturing Co. were the American pioneers in this line, and as thousands of readers of *The Blacksmith and Wheelwright* are users of these anvils, there is no doubt but what many will be interested to learn more about this enterprising establishment.

The officers of the company are as follows: James Hay, president; Frederick C. Budden, vice-president; Walter F. Ring, secretary and treasurer. In connection with this article we are fortunate in being able to present faithfully correct portraits of

these three gentlemen.

James Hay was born in Elgin, Scotland, and arrived in this country about 1880 with practically no means, but with considerable experience as a blacksmith. After securing employment at various times at horseshoeing and general blacksmithing, he finally obtained employment with E. W. Bliss Co., of Brooklyn as a die forger. This position he held until about 1890, when he formed a partnership with Mr. Budden for the manufacture of die forgings.

The business was established at Frost street, Brooklyn, in a small building and in a small way. Mr. Hay and Mr. Budden personally worked at the forge, and their only other helpers were the few employees. Oftentimes in the morning the result of the previous day's labor would be delivered by wheelbarrows to the various customers, while the labor of getting out the work would be continued far into the night.

By hard work and strict attention to business the business prospered, and additions were continually being made to the

plant, until about 1893 the manufacture of anvils was called to the attention of Messrs. Hay & Budden, and they decided to furnish the blacksmiths of this country with an anvil made in America. It was then evident that their facilities at hand and buildings were not large enough to meet the requirements of this growing business.

About this time Walter F. Ring, who was a native of New York city and had experience in the hardware line and in the rolling mill business, joined forces with Mr. Hay and Mr. Budden, with the result that the business was incorporated under the style of "The Hay-Budden Manufacturing Co." and it was decided to move the entire business to its present location.

It was soon demonstrated that anvils could be manufactured in this country not only equal, but superior, to those manufactured elsewhere, and hearty encouragement was given by the blacksmiths to this industry, with the result that the present plant occupies 52,000 square feet of ground and gives employment to 250 hands, and that \$150,000 are paid out in yearly wages.

This concern not only supply the wants of the home trade, but ship their anvils to all parts of the world.

The great success of the Hay-Budden anvil, not only at home but abroad, fully demonstrates its superior quality. Hundreds of testimonials could be printed here from blacksmiths who have used these anvils. They are made with the greatest care from start to finish, the intention of the manufacturers being to make each anvil as perfect as science and skill can produce. Many readers will be interested in the following graphic description of how anvils are made in the Hay-Budden works. We are indebted for the following article and accompanying illustrations to the *Iron Age*, said article having appeared in the issue of that publication dated May 11, 1899:

Making A Solid Wrought Iron Steel-Faced Anvil

(From *The Iron Age*, May 11, 1899)

Although the ordinary anvil is being gradually displaced by steam and drop-hammers, it is more than doubtful if it will ever be entirely superseded by any other device or appliance upon which to pound and shape things. It is essentially an adjunct upon which the skill of the blacksmith depends in the closest degree, and without which his vocation would be seriously hampered. It's form has not been changed materially in the memory of man, the only alterations being such as have been required by special operations or the whims of the user.

The blacksmiths must as prerequisites embody certain features. The body and horn should be able to withstand the severest usage, while the face should be able to resist the blows of a

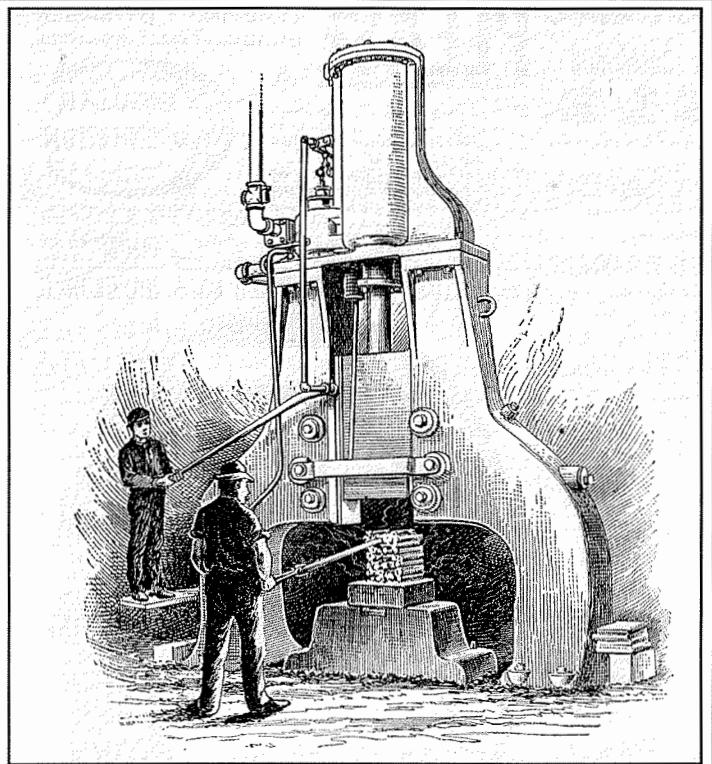
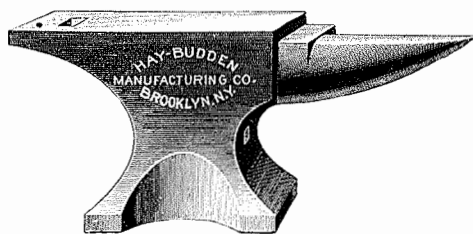


Figure 1 -- Hammering wrought iron scrap.

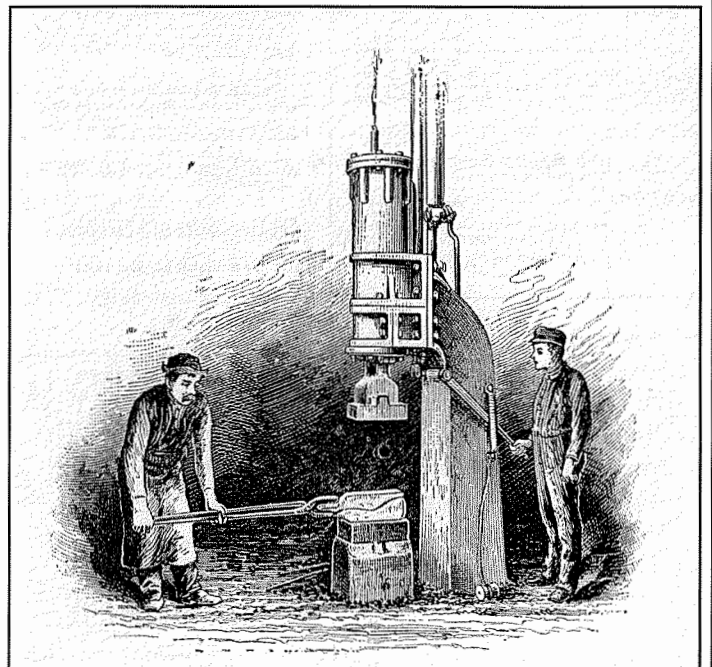
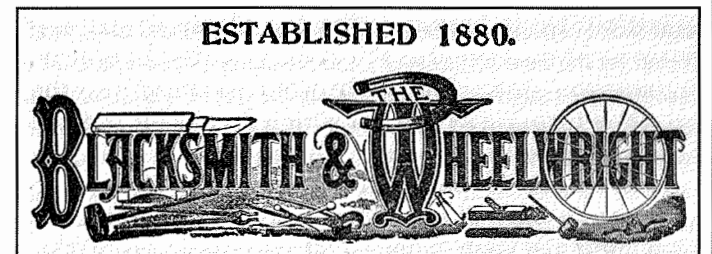


Figure 2 -- Welding steel face under the hammer.

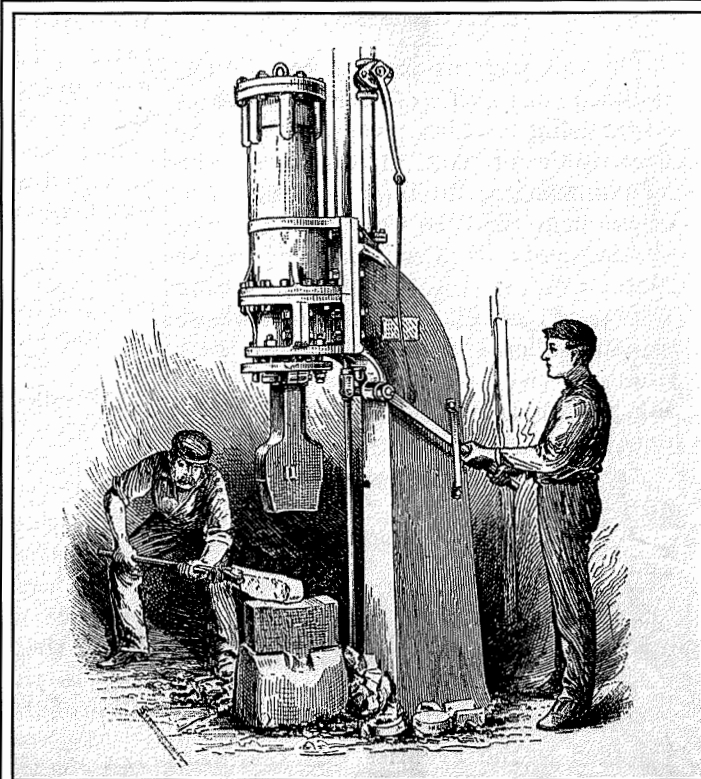


Figure 3 -- Forming the horn under steam hammer.

hard faced hammer, to resist chipping or flaking and to be unaffected by the heat imparted by the article operated upon. It is essentially a rough-and-ready tool, in the use of which but little discretion is exercised, and which, if it fails from any cause, will undoubtedly be emphatically condemned.

The tone of an anvil, upon which more or less stress has always been laid, may or may not mean that it is a superior anvil. While all anvils could not enter an "anvil chorus," it yet remains a fact that a poor anvil may have a rich and perfect

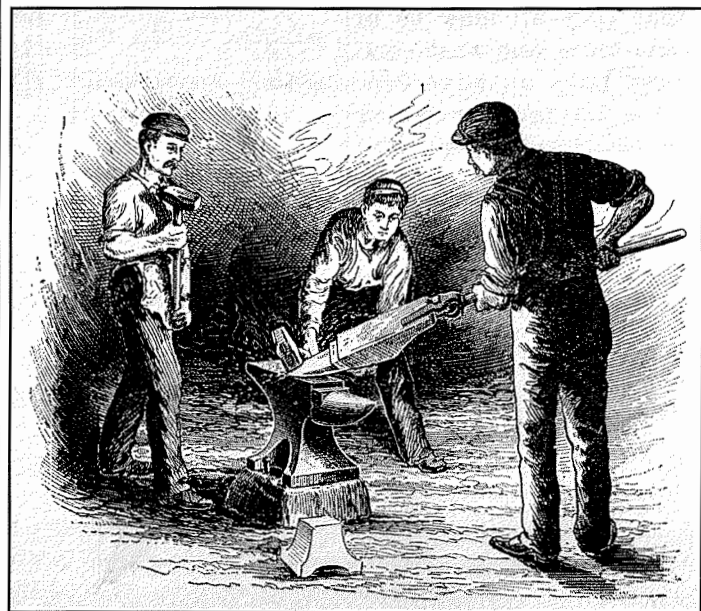


Figure 4 -- Finishing the horn by hand.

tone and at the same time be weak in its structure. On the other hand it may be put down as being almost axiomatic that the good anvil is invariably of good tone. Judging, therefore, its physical characteristics is not always a safe and sure guide. The old blacksmith who pounded for years upon the same anvil probably appreciates its ring more than any other feature, and to him it means a harmonious instrument of high grade.

SOLID WROUGHT STEEL-FACED ANVIL

The wrought solid body steel-faced anvil built by the Hay-Budden Manufacturing Co., of Brooklyn, whose works a representative of *The Iron Age* recently had the privilege of visiting, is made essentially of three parts: the wrought iron base, a wrought iron body and a steel face of special composition. In the making of an anvil these three parts are manipulated separately and brought as near as possible to their final form, when they are united by welding, the anvil brought to its true form, tempered and finished. The method of manufacture and the material employed in all the parts insure the integrity of the finished article.

It is very evident that the selection of material is of prime importance, since it controls the quality of the output. Skill in the manipulation insures good results as far as workmanship is concerned, but without perfectly adapted materials to start with the utmost skill and experience would be thrown away. The best material may be, of course, spoiled in the handling, but a quality of the highest grade is necessary to perfect results. Wrought iron is used for the body of the anvil, for the reason that it is less liable to be injured by the successive heatings and hammerings to which it is subjected than steel, and for this reason the result can be more surely relied upon.

In watching the various operations one cannot but be impressed with the proportion of hand work. At every single step except one the man is the important factor. It is the individual who judges the heat, controls the hammer and finally influences the form of the finished article. This dependence upon skill makes it impossible to produce close and accurate standards as far as size and contour are concerned, and since this is not absolutely essential but little attention is paid to it. One anvil may and does differ from another in magnitude, and since the work to be performed upon it is not of the accurate kind as understood in some mechanical operations there is no good reason why any attempt should be made to follow a pattern closely. In order to satisfy the whims and to meet the various views of blacksmiths it is desirable to have a varied assortment of different widths, lengths and proportions for the same weight of anvil. This permits every blacksmith to find an anvil that suits his ideas.

As has been said, in only one step is the workmanship overshadowed by a machine--namely, in forming the base. This is an operation which has little to do with the final product, as it is simply a pedestal supporting the working face, and the method here pursued in making it is merely introduced as a labor-saving and economical operation.

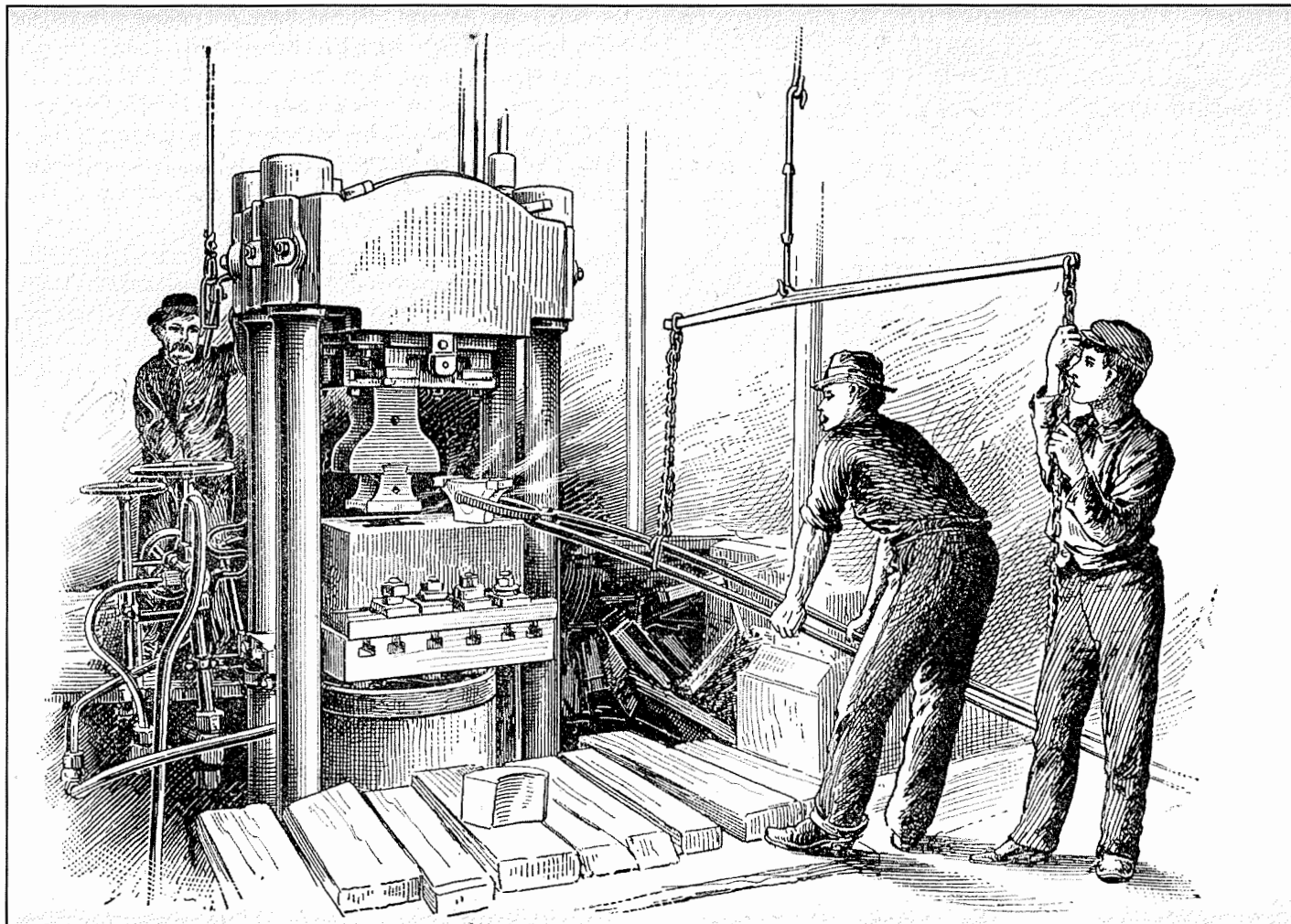


Figure 5 -- Forming bottom of anvil in hydraulic press

THE WROUGHT IRON BILLET

The wrought iron scrap for the base and upper part of the body is cut to proper size, bundled, heated in a furnace and welded into a compact mass under the steam hammer, as shown in *Figure 1*. The billets then pass to a second furnace, after which their paths diverge. The one which is to be incorporated into the upper part of the anvil is rough hammered into shape and is then ready to receive the steel face. This is a flat bar of steel of such composition as will take a certain temper, maintain its elasticity and resilience, and be so tough as, with the aid of the wrought iron backing, to resist fracture. The billet and steel are heated in the same furnace and welded with the steam hammer shown in *Figure 2*. From this engraving it will be noticed that the workman handling the billet places it upon a roughly curved die which forms the lower part of the upper part of the body. The blank then passes to another steam hammer, *Figure 3*, with which the point is drawn down, the tail of the anvil rough shaped, and the given dimensions approached as near as may be practicable. The final operation on the top is done by hand, as illustrated in *Figure 4*. The sides are here brought truly parallel, the horn is tapered and properly curved on the under side and the

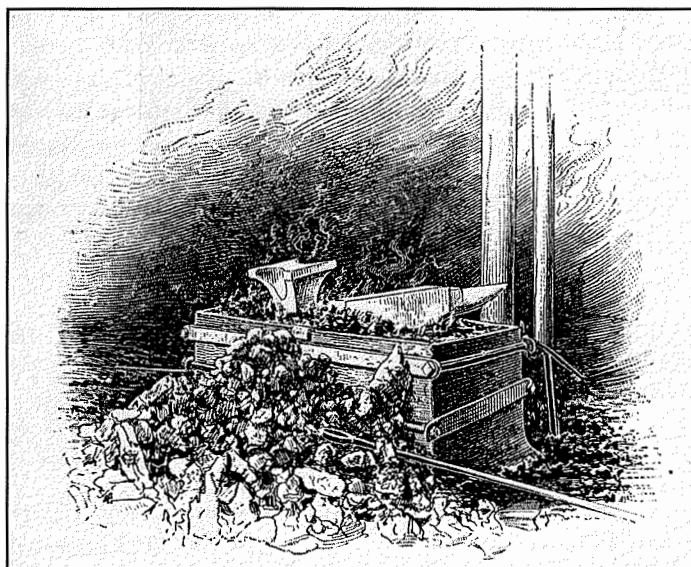


Figure 6 -- Heating top and bottom parts for welding.

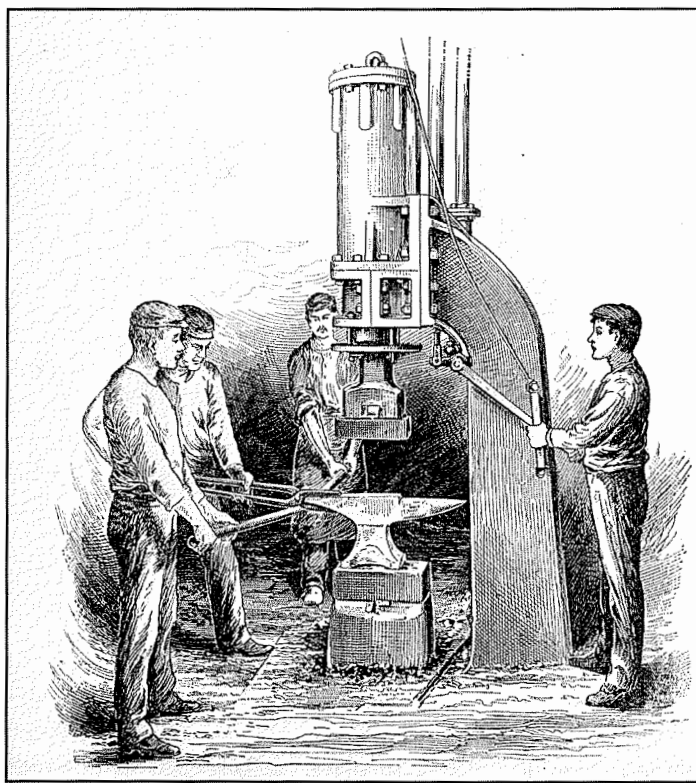


Figure 7 -- Welding top and bottom parts under steam hammer.

top practically finished. During these operations pritchel and hardy holes have been formed in the top of the anvil.

Another billet passes from the furnace to the hydraulic press shown in *Figure 5*. What we may term the anvil of this press moves toward the rear, reference being had to the engraving, so that the billet can be dropped into the opening above the ram. The anvil is then moved back to a central position, water turned on and the ram is forced upward, completing the lower part of the anvil, with the exception of a slight burr due to excess of metal which has been squeezed out around the edge.

This finishes at one operation the bottom, which is next ready to be welded to the top. The small coke heated furnace shown in *Figure 6* supports both top and bottom parts, the parts to be welded being placed next the fire. When the proper heat has been attained the base is placed upon the anvil of a steam hammer, the top centrally held upon it, as illustrated in *Figure 7*, when the two parts are perfectly incorporated.

The next step, and one of the most important, as far as the appearance of the finished anvil is concerned, is illustrated in *Figure 8*. From the welding hammer the anvil is taken to a cinder box and by means of sledges the joint is thoroughly hammered down, the surfaces are sprinkled with water and smooth hammered to remove the scale, after which the hammer is placed face down in a furnace and when the steel portion has reached a dull red heat it is placed in the hardening tank, *Figure 9* and streams of water thrown upon it. The anvil is left in the tank until cool. Before hardening the anvil has been roughly ground on the face, and after hardening it is taken to large grindstones, where it is ground upon the edges and the face trued up.

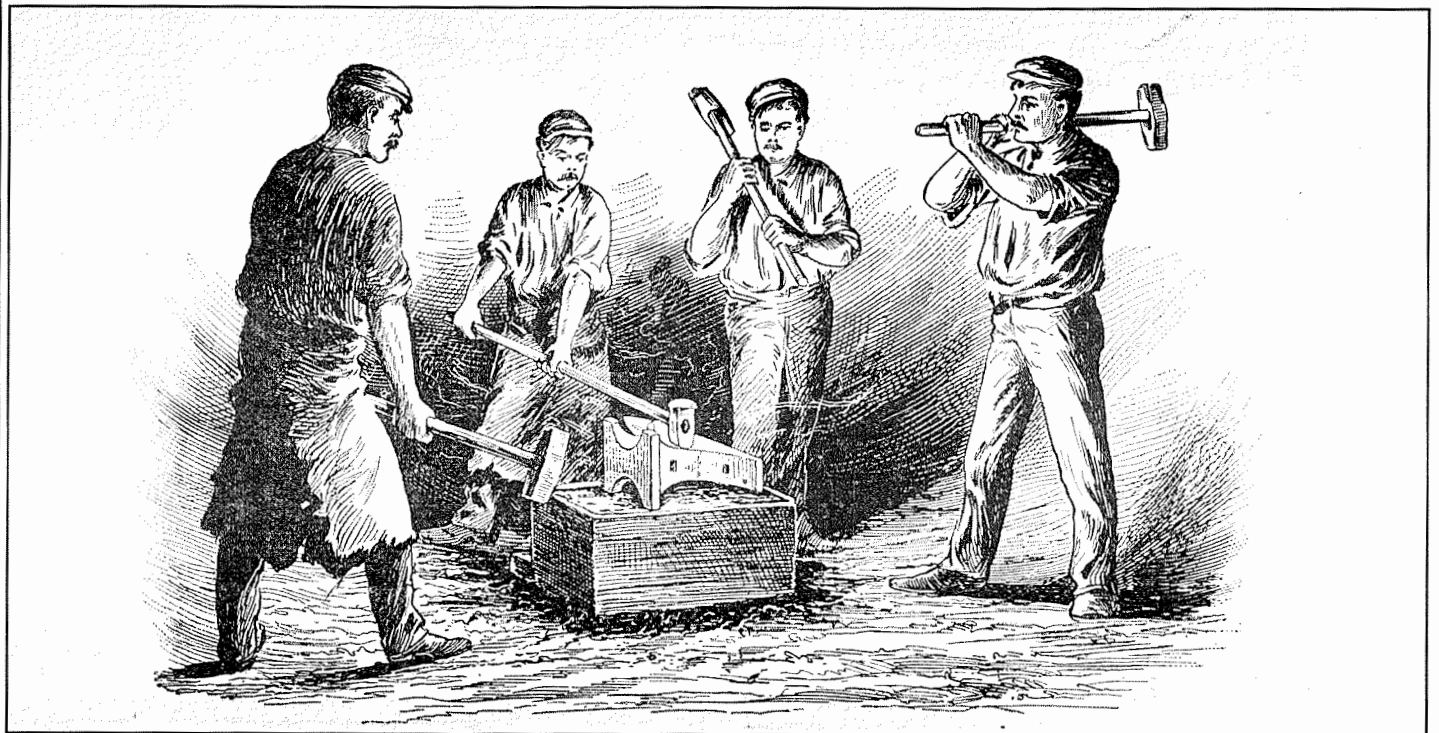


Figure 8 - Finishing Anvil by hand hammering.

TESTING

At first glance it would seem unnecessary to test each anvil. This would appear to be of little consequence, as the material is first intimately known, the various operations are carefully performed, and the product should seemingly meet the requirements in every instance; but this is not relied upon. Each heat of steel for the face is incorporated in one or more anvils, and upon their completion they are tested in every way possible with the hammer. They must resist indentation with a hard, heavy hammer, must be free from all tendency to chip on the sides or flake on the top, and even under the most severe treatment must remain free from all cracks. Not only is this policy pursued when each new heat is commenced, but it is followed in the case of every anvil turned out. After grinding the body of the anvil is painted and the face varnished and covered with heavy burlap, which prevents the face from being damaged in shipping.

The Hay-Budden Co. are now turning out about one hundred tons of completed anvils per month and their trade extends over the entire world. In this connection it may be of interest to note that during the past few years the importation of anvils into this country has steadily decreased. By far the largest supply of foreign anvils has been received from Great Britain, which country in 1893 sent here 1,567,746 pounds; in 1894, 704,764 pounds; in 1895, 1,085,054 pounds; in 1896, 859,580 pounds, and in 1897, 605,211 pounds. In 1898 the total importation amounted to 777,903 pounds, valued at \$47,797.

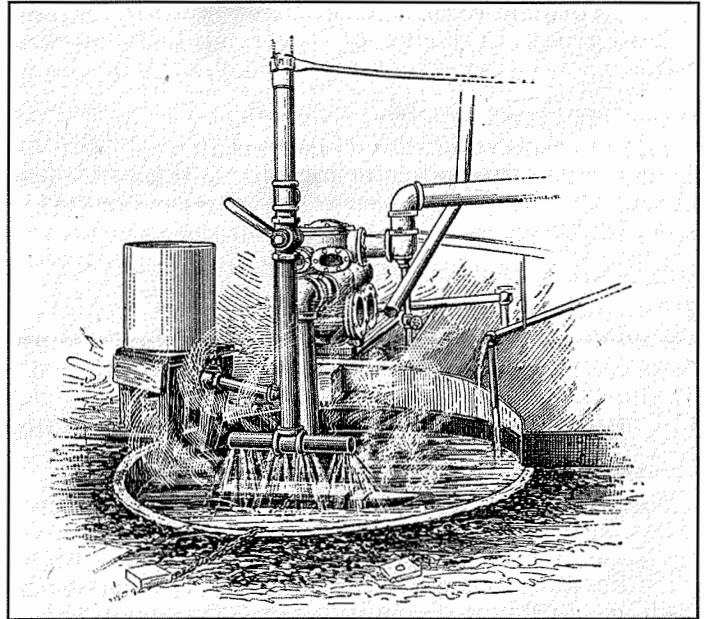


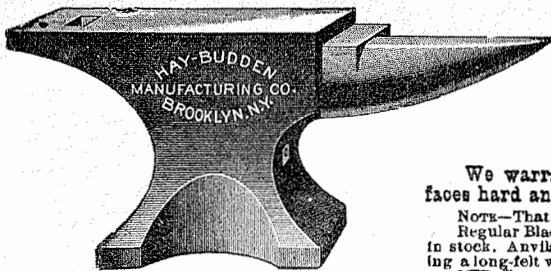
Figure 9 -- Hardening face of anvil.



Hay-Budden Manufacturing Co.,

BROOKLYN, N. Y.

Solid Wrought Anvils.



Received Gold Medal, Highest Award for Anvils, at Omaha, 1898.

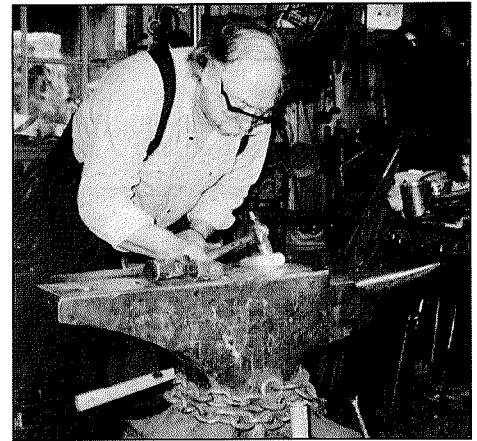
Every genuine "Hay-Budden" Anvil is made of the best American Wrought Iron, and faced with best Crucible Cast Steel.

Every genuine "Hay-Budden" Anvil is made by the latest improved methods. Top and bottom are each one solid piece, not in two or more pieces, as is customary with most anvils, and are welded at waist.

We warrant all "Hay-Budden" Anvils to be sound, to be free from flaws, and to have faces hard and true, and will replace without extra cost any that prove otherwise.

NOTE—That every genuine "Hay-Budden" Anvil is stamped with our name. Regular Blacksmiths' Anvils and special Horseshoers' Anvils in standard weights and sizes always carried in stock. Anvils of special dimensions and shape made at short notice. Our Farriers' Clip Horn Anvils are filling a long-felt want. Sold only through the dealers.

Every anvil user in the United States should use an American-made anvil, and if your dealer does not handle them he can get one for you at short notice. Guaranteed equal to any anvil on the market.



Bringing an anvil back to a useful condition from one which has been damaged by careless use is a simple process. For the average person it can be welded up using 7018 high-strength rod, which is work-hardening rod. Work hardening takes place as the anvil is used.

Prior to welding up the anvil, pre-heat the anvil to about 400 degrees. Weld it up, then post-heat the anvil, again bringing it up and letting it cool down slowly (stress relieving). Then grind it and get it nice and smooth. There are those that claim you need to use harder welding rod, such as Studie or other hard-surface rod, but I don't believe that is necessary. For the person who is skilled in the use of an anvil, 7018 work-hardens just fine and eventually will be as good as new. There is usually no need to re-heat treat the anvil. 7018 does, in fact, heat treat fairly well. If heat treating should become necessary it acts a little bit like 1045, so it has the potential to be heat treated. Unlike Studie, or other hard-surface rods, 7018 will not crack or fail

If Studie or other hard-surfacing rod has been used and you wish to re-heat treat an anvil, you have a real possibility of failure due to stress cracks in the re-heat treating process. That's why I prefer the 7018—it works better, it's faster and you get a very satisfactory job. Assuming that the person using the anvil knows how to use it correctly, you won't have any problems. I have repaired more than a dozen anvils in this fashion, which are used during workshops in my shop. They hold up just fine as long as I keep students from using improper blows, improper tooling, etc.

After the anvil has been repaired in this fashion and you put a ding or two in the anvil, it can be fixed by using a set of hand fullers, a farrier's rounding hammer or ball peen hammer. A ding is nothing more than a divot or dent in the surface of the anvil. As material is around the edge of the ding, you can take that material and fuller it back smooth. Just peen it back into position to remove the ding. No additional grinding should be necessary. There may be a slight depression or noticeable mark, but as the anvil is worked this will disappear. If the ding is a serious one, then go back to the repair method.

If an anvil has a broken horn 1-2 inches back, don't weld it up. Take a heat on the horn and draw it out, reshaping the horn. There is plenty of material for the reshaping. You'll need a couple of friends to help you hold the anvil, but it's easily done and you'll enjoy doing it.

If an anvil has to be totally repaired and re-heat treated, build yourself a kaowool blanket propane forge fire on the ground outside your shop. The best way to handle the quenching of the anvil is to get a big cattle tank and lots of water, plus have a couple of extra buckets of water on hand. Take a complete heat on the anvil. Suspending the anvil upside down, submerge the anvil in the tank to the waist and be sure to keep the water moving until you harden the top. Leave heat in the waist and feet. By using Tempil sticks you can draw to the desired hardness you want. We did a 360-lb anvil at my shop this way and it works great.

If all else fails or you want more instruction, call me and I'll walk you through it over the telephone.

—Jerry Culberson, Old Cedar Forge, 360-275-6769



***“A Bud Vase Called BUBBA”
by Jerry Culberson
Old Cedar Forge***

“BUBBA” began its journey to existence as a 5 1/2” by 5 1/2” by 13” block of steel. Using a simple fullering tool made for this one purpose and the enormous 8,000 pounds-per-blow power of the 4B Nazel forging hammer, impressions were forged into all four sides of the block. This elongated the piece to 14 3/4”.

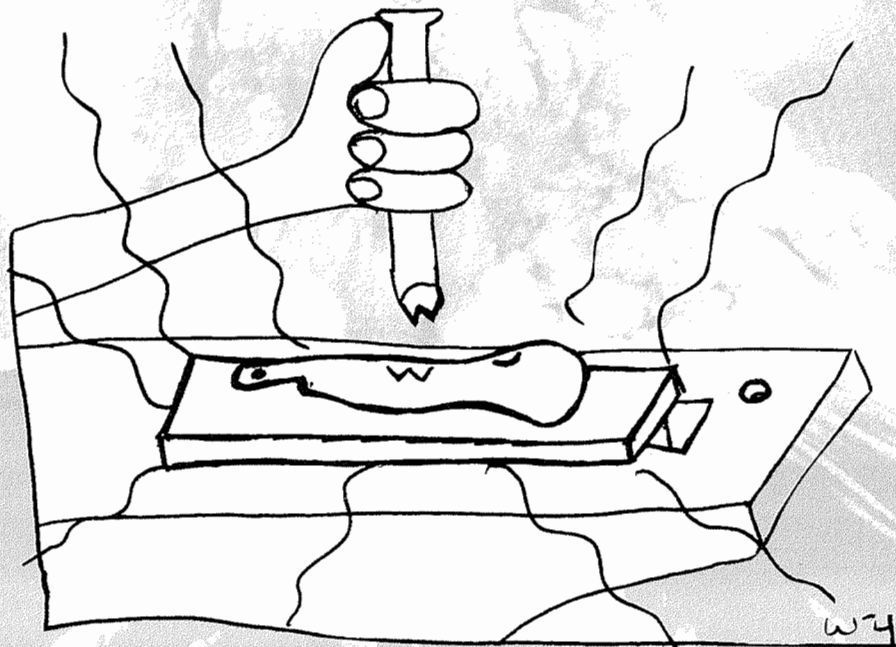
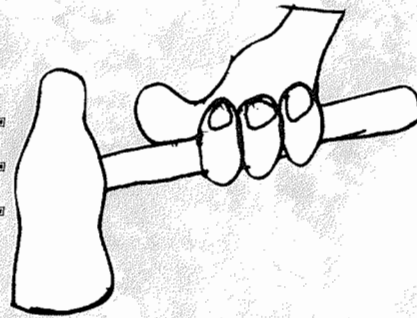
Then, removing the bottom die to increase the stroke of the Nazel, the upsetting phase took place in four serious and successive heats using the enormous force of the hammer. The result is a 4 1/2” reduction in total length and an incredible change in the overall dynamic of the piece. The manifest power and energy generated as each blow upsets the piece is graphically shown here as the heated mass became the block of stored energy known as “A Bud Vase called BUBBA.”

WIDE WARE



TOUCHMARK

SO THAT BLADE YOU WORKED
 ON ALL MORNING IS *Thin Thin Thin!*
 HOW ARE YOU GOING TO GET
 THE ALL-IMPORTANT TOUCH-
 MARK INTO IT BEFORE THE
 ANVIL COOLS IT???: CHAPMAN,
 OF OAK AND IRON, SAYS: HEAT
 UP A BIG CHUNK OF STOCK, PUT
 IT ON THE ANVIL, GET THE HOT
 BLADE ON IT QUICK, AND
 MAKE YER MARK!!!



stender hammer

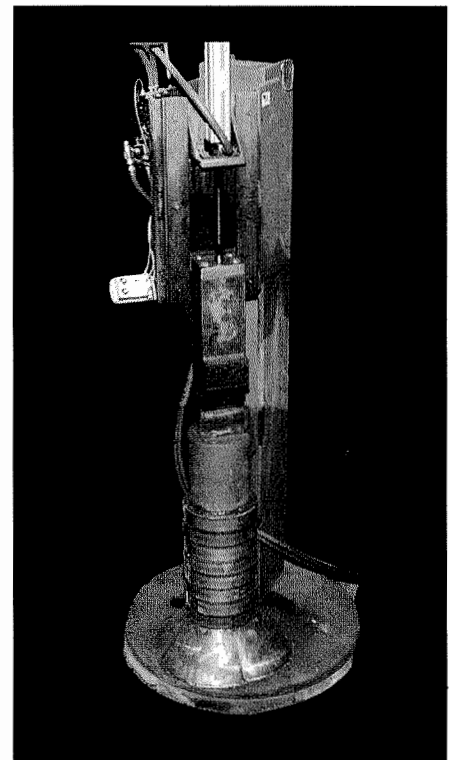
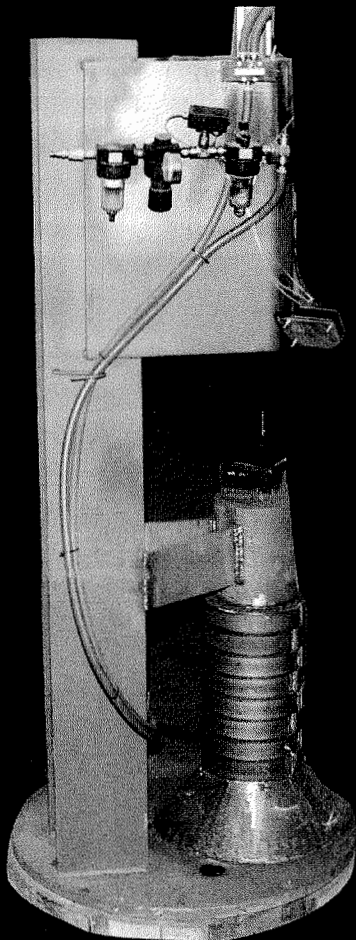
This is a power hammer based on Ron Kinyon's design. This hammer was built using Ron's design as a basis to start from. Final design was decided upon after seeing two other hammers built from these ideas. And, of course, scrap materials on hand lent to overall design. It is built taller to save our backs and it is also considerably heavier with a 120-pound hammer head. Anvil base weight is 623 pounds. Overall weight is 1545 pounds. The air system was all Schrader Bellows components except two pieces, and this is where the upgrade from 70's to 90's technology got us into trouble. At first the hammer would not work as anticipated. So, by deleting some components and adding two others it finally worked. Not exactly like it was supposed to but by this time I was happy that it was working at all!

Instead of control at foot pedal, this hammer's adjustment is controlled by an oscillator assembly and, while this can be somewhat inconvenient, it can also be handy for repetitive blows at varying strengths or speeds.

I am currently trying to rework the air system so that it will be more "hammer-like." I think that I can keep the oscillator control for fine tuning but redirect most of control back to the foot pedal where it belongs.

For anyone interested in how this turns out, or for specifics on the construction or air system components, you can call me evenings.

Mark Stender
 2107 Urban Avenue K20
 Mount Vernon, Washington
 98273
 (360) 424-6325





Doug Wilson Workshop Notes . . . a belated article by Craig Hollow . . .

Too long ago, the reknowned blacksmith, Douglas Wilson, traveled from his home on Deer Isle, Maine to be the featured demonstrator at the NWBA's Spring Conference in Sisters, Oregon. For three days leading up to the conference, Doug gave a workshop on designing and building a forged table. Six smiths: Roger Olsen, Delly Esterbrook, Don Kemper, Dennis Prince, Geronimo Dayard, and I joined the workshop's host, Joe Elliott, at his Dry Canyon Forge for the event.

Because the workshop took place so long ago and my memory is so marginal, I have foregone a narrative description of the event in favor of a distillation of the principles, hints and tips that grew out of working through the table-building process with Doug and the other participants.

A significant portion of our labors was dedicated to designing the table. Doug's approach to the design process is somewhat counterintuitive. In designing a table or any functional object, we often heed architect Louis Sullivan's dictum that "form follows function," establishing the parameters of the function, then creating a form that meets those parameters and finally adding ornament like decorations on a Christmas tree. Doug's method, in contrast, focuses on developing forms first without the constraints of function, and only later, after the mind and the subconscious have been fully tapped, eliminating forms until one is found that marries well with the functional needs of the piece. Here are some of Doug's suggestions for ways to "Stay loose" and open to new design possibilities:

- Take time to draw outside of the shop. At the outset of the workshop we took a trip to a local riverside to draw for more than half a day.
- Don't draw details such as joinery. Though it may sound odd, try not to think about how your drawings may relate to your finished design. The idea is to open yourself to the influences around you. So....
- Do draw whatever interests you whether or not there is an obvious connection to the project at hand. Doug showed us photos of gorgeous forged chandeliers and tables he had made that stemmed from such odd inspirations as apple trees and the flight pattern of dragonflies.
- Try drawing single ideas for very short periods (3 to 10 seconds) and then shifting to new sheets of paper—another way to "Stay loose."
- Use large sheets of paper; draw with the whole arm (rather than the elbow or wrist) using a wide-lined drawing tool such as charcoal. Again, the focus of the exercise is on creating raw forms, not to bog down in finer details.
- Once you have amassed a sheaf of these roughly formed sketches and scribbles, use an adjustable frame of two posterboard L's to isolate shapes in your drawings that interest you.
- Use a mirror to create symmetrical shapes from your asymmetrical sketches. Copy these new forms onto fresh sheets of paper.
- After all of this, start eliminating possibilities, narrowing down your drawings to what attracts you, developing ideas in new drawings, slowly wedding your raw forms to the function your piece will need to perform.

Once we had designed our table, we had to build it. This was the point at which Doug encouraged us to think carefully on the details of our design: Exactly how would we join the base to the uprights? And how *do* you forge a five-sided taper? Here are some suggestions for tackling some the problems of the building process and the secrets of our solutions to some of the key difficulties we met in the building of our table.

- Make a plan. The more specifically you can anticipate the problems you will run into, the better you can prepare to meet them. If you have to change your design because of a forging or joinery detail, it is far easier to do before you begin building than it is when you are 90% finished. Whenever possible have a second option in mind that can be used if your plan fails.
- Test thoroughly. We forged test tapers and textures to avoid wasting both steel and time. We mocked-up a scale model of the table. We tested our theories about forging with plastalina, a pliable modeling clay we actually "forged" on the anvil.



- Take careful notes. It is incredibly helpful in a complicated project to have a record of your plan should you lose track of what your next step should be. Also, if you get an order for a matching piece years later your notes prevent you from having to reinvent your own wheel.
- How to forge five-sided stock. Forge a short section of heavy angle open to 108 degrees. Weld it onto a 5/6ths or 3/8ths-thick plate with two round stock supports and a handle as per Figure 1. We used thick-walled round pipe for our table, but whether using pipe or solid bar, start with round stock that you have pre-tapered. With a striker, forge the first few inches of the bar in the jig to carefully establish the angles, then work your way up the bar, being certain to correct your angles anytime they begin to go awry—small mistakes quickly compound, leaving you with a very unpentagramish cross-section.

To forge the gentle curves in five-sided tapers used in our table we set two notched logs about 18 inches apart on Joe's sturdy platen table. Taking a long heat, we set a bar in the notches and, using a 2x4 as a flatter, hammered along the length of the piece until the desired curve was achieved.

On Friday morning, after putting the finish on the table and before dispersing, we had a discussion about some of the issues surrounding the business of blacksmithing. We each anonymously calculated the price of the group's table as though it had been built in our own shop. The prices ranged enormously from about \$400 to over \$2,000, illustrating how the different approaches to shop rates, design fees and the client-smith relationship add up to vastly different realities of the viability of smithing as a profession. Without opening the debate about shop rates and plagerism, here are some suggestions that seemed to garner consensus among our group about how to work with clients and run a blacksmithing business.

- Try not to bring your realities with money into the process of making bids. Few cash-starved, tool-hungry smiths could afford to purchase their own products at their real prices, but lowering prices because they seem high in light of our budgets is a sure way to spend countless hours working, unhappily, for free. Always consider what the market will bear (and you will quickly find out if your prices are too high) but there is rarely a need to undersell the market anymore than the amount necessary to stay competitive or to break into the business.
- Give your client a few design options, all well-conceived. Don't give them your whole sketchpad or drop a library of books in their lap to thumb through. Likewise, don't confine the client to only one design.
- Charge for design time. Doug, who charges a \$60/hour shop rate, charges \$45/hour for design. This assumes keeping a careful record of how time is spent and not charging for time not spent working.
- Site visits are also charged time.
- Making samples and scale models helps clients, who often are not artists, to visualize in three-dimensions.
- Establish contract terms up-front. Tell the client your fees and layout the payment schedule. Doug writes "FOB" on most of his contracts, alerting his clients that delivery is not included in his price, nor is installation.
- To make an itemized bid add up all the operations involved in making the piece. Ask yourself how much you like the piece and adjust the price accordingly.
- Francis Whitaker, oft-quoted throughout the workshop, has a rule that Doug follows: "If it costs less, charge less; if it costs more, take the loss."

All of these are suggestions only—each smith must find a way to run their business in a way that meets their financial and aesthetic needs. It can help to hear how others run their shop but no one can give a blueprint for success.



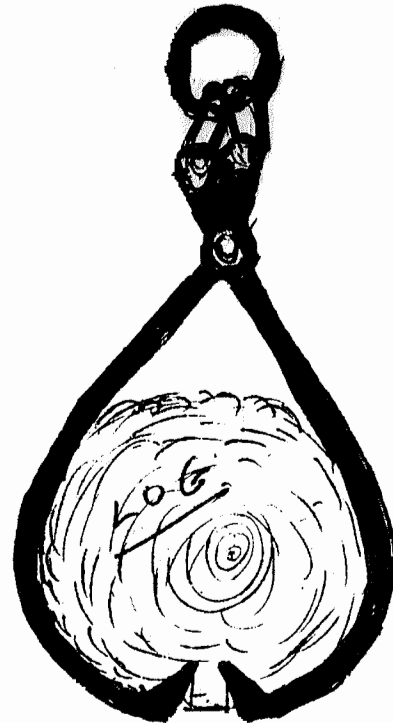
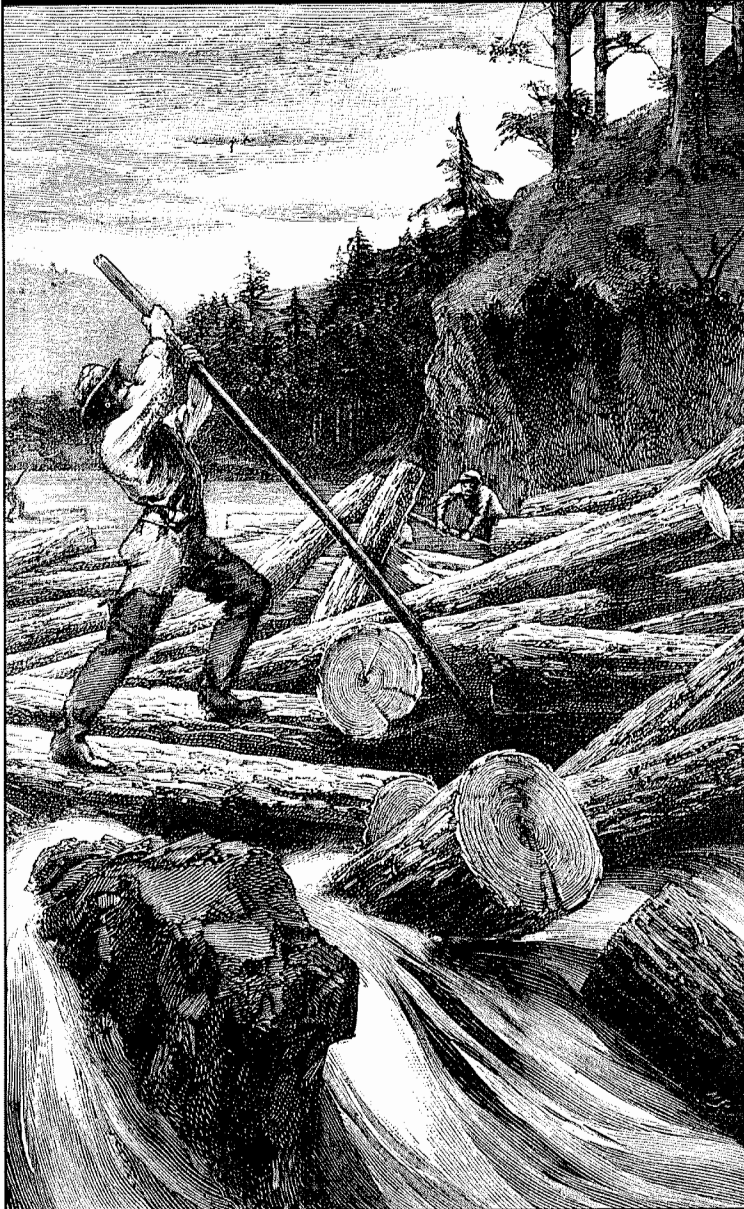
I would like to thank Doug Wilson for his excellent workshop and Joe Elliott for opening his well-equipped shop up to us, closing it for a number of business days. My sincere thanks as well to the NWBA and my fellow workshop participants for their undue patience as they waited . . . waited . . . and waited for me to write this article.

Craig Hollow, POB 35, Seattle, WA 98111

FROM THE WILDS OF THE CANADIAN PACIFIC SOUTHWEST ...

TIMBER TONGS

BY JOHN ADOLPH



NEED TO FETCH SOME FIREWOOD? THIS INTERESTING PROJECT REQUIRES ARTFUL FORGING TO MAINTAIN FUNCTIONAL STRENGTH!

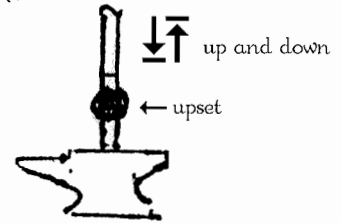
Forging the Timber Tongs . . .

Use stock 1" to 1 1/4" in diameter, cut 29" to 30" long. Use SAE 4140 Hot Rolled. Heavier tongs can be made from 1 3/8" to 1 1/2" thick stock cut to 32" to 33" in length. indicates heated areas in the drawings.

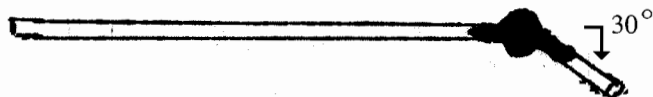
Step 1



Heat with torch rose bud and upset on anvil face rotating in your hands as you upset. If heated in fire 5 1/2" long, quench 4" in water to black heat and upset in three heats.

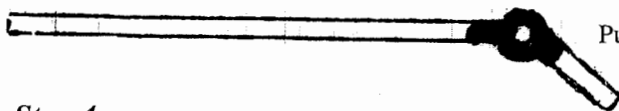


Step 2



Flatten ball to 1/8" thicker than diameter then bend over anvil horn about 30 degrees.

Step 3



Punch hole to 3/4" diameter.

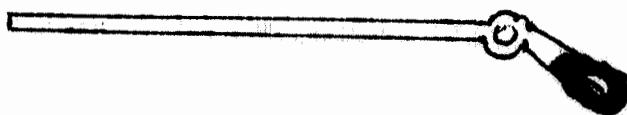
Step 4



← Ear end for link hole.

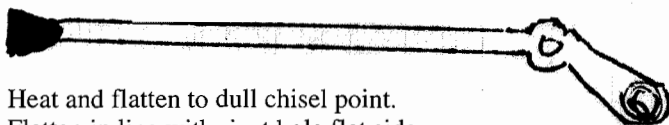
Rotate to left 25° and flatten ear end to 3/4" thickness on end where link hole goes.

Step 5

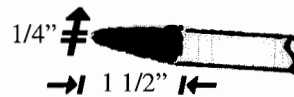


Punch ear end hole 3/4" in diameter and countersink hole from both sides with ball-peen hammer. Re-round link hole at end of anvil horn.

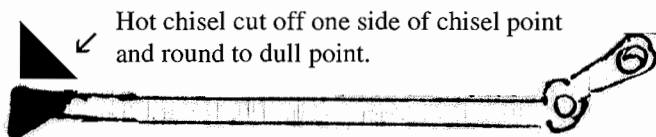
Step 6



Heat and flatten to dull chisel point. Flatten in line with rivet hole flat side.

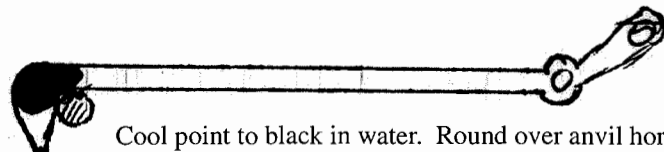


Step 7



Hot chisel cut off one side of chisel point and round to dull point.

Step 8

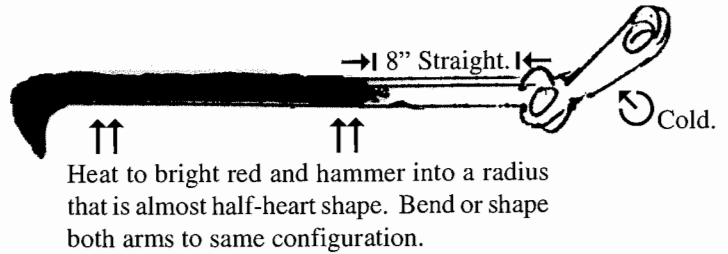
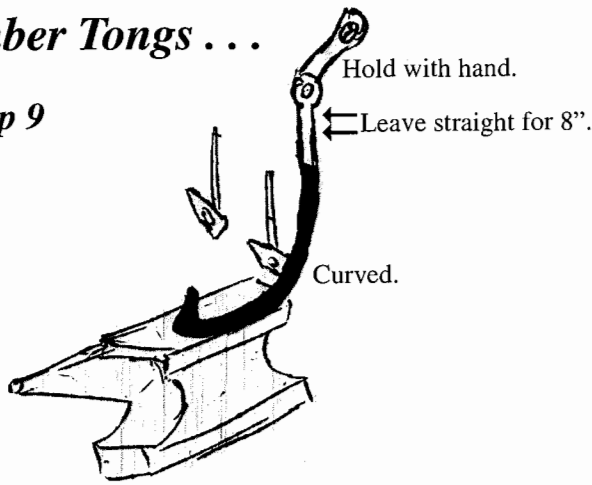


Cool point to black in water. Round over anvil horn almost 90° then hammer to sharp point. File to needle point.



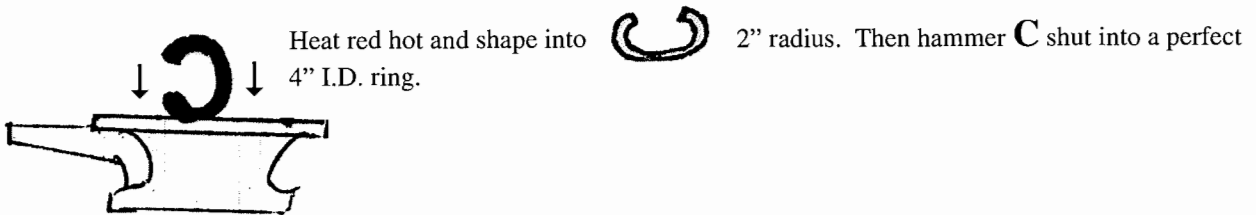
Timber Tongs ...

Step 9



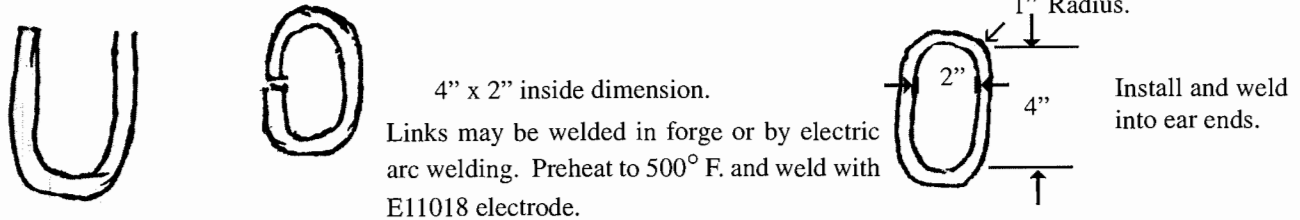
Step 10

Rings and Links: Ring stock is 3/4" diameter 4140 and 15" long.



Step 11

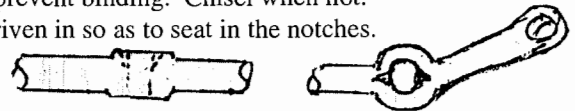
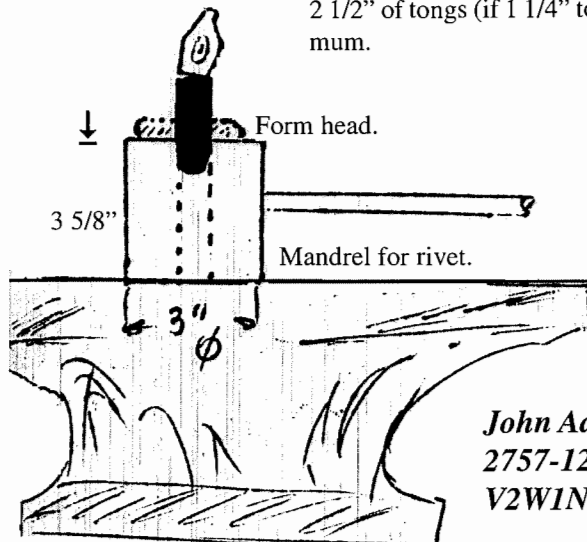
Links: 5/8" diameter 4140 12 5/8" long to make a link.



Step 12

Rivets: 3/4" diameter 4140. Allow 1 1/2" times diameter minimum for rivet head forming i.e. 3/4" rivet, 2 1/4" for 2 head formings + 2 1/2" of tongs (if 1 1/4" tongs)= minimum 4 3/4" total length, 5" maximum.

Note: In one rivet hole in one shank of tongs chisel two notches so rivet will only turn on only one shank to prevent binding. Chisel when hot. Hot rivet is driven in so as to seat in the notches.

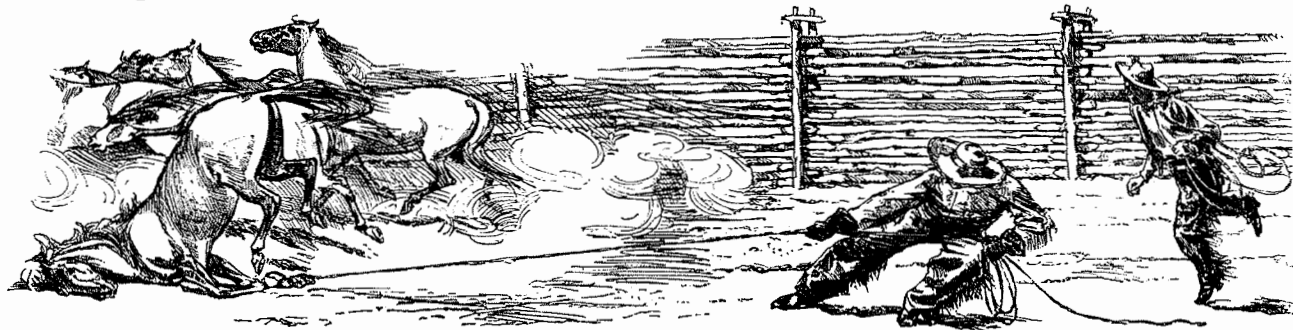


Weld links into tongs. Rivet tongs while rivets are white hot. Heat riveted part of tongs to red hot heat and open and close rapidly back and forth until loose, oil mixed with graphite will lubricate hinge parts. Now weld ring into links. Do not heat treat or temper the tongs! *You're ready for logging!*

John Adolph, Welding Consulting Services and Realistic Art
2757-128 Avenue, Maple Ridge, British Columbia, Canada
V2W1N5

John Adolph

Cowboy Iron and Poetry by Greg Hartell



Reincarnation by Wallace McRae

What does reincarnation mean?
A cowpoke ast his friend.
His pal replied, "It happens when
Yer life has reached its end.
They comb yer hair, and warsh yer neck,
And clean yer fingernails,
And lay you in a padded box
Away from life's travails.

"The box and you goes in a hole,
That's been dug into the ground.
Reincarnation starts when
Yore planted 'neath a mound.
Them clods melt down, just like yer
box,
And you who is inside.
And then yore just beginnin' on
Yer transformation ride.

"In a while the grass'll grow
Upon yer rendered mound.
Till some day on yer moldered grave
A lonely flower is found.
And say a hoss should wander by
And graze upon this flower
That once wuz you, but now's become
Yer vegetative bower.

"The posey that the hoss done ate
Up, with his other feed,
Makes bone, and fat, and muscle
Essential to the steed.
But some is left that he can't use
And so it passes through,
And finally lays upon the ground.
This thing, that once wuz you.

"Then say, by chance, I wanders by
And sees this upon the ground,
And I ponders, and I wonders at,
This object that I found.
I thinks of reincarnation,
Of life, and death, and such,
And come away concludin': Slim,
You ain't changed, all that much."

From *Cowboy Poetry*, a Peregrine Smith Book.



While driving south from Oregon's "Outback" and on into Nevada, I got to thinking about what to expect from a blacksmith workshop entitled "Ranch Blacksmithing."

What I knew was: the workshop was to be instructed by well-known blacksmith Frank Turley; he operates a school of blacksmithing in Santa Fe, New Mexico; the site was to be at the metal shop of the Great Basin Community College, Elko, Nevada; this second annual event was being held in conjunction with the Fifteenth Annual Cowboy Poetry Gathering, an event that strives to perpetuate and preserve the culture of the cowboy and the American West, a West where self-sufficiency was a way of life and no remote early-day ranch could have gotten by without some blacksmithing skills; and, I had just passed a road sign saying, "Next gas 147 miles!"

What I found out was: this workshop was started with an educational memorial fund in honor of an Elko area rancher who enjoyed blacksmithing; Frank Turley was a

laid-back guy with a teaching technique that was reinforcing, understandable and challenging; this workshop drew smiths from south central and northeastern Oregon, northwestern California, Idaho, Nevada, Alabama and Michigan; and northern Nevada was not as desolate as you might imagine (I met several vehicles in that 147 miles!)

Our workshop sessions consisted of demonstrations and lectures by Frank followed by hands-on work at the forges. Of course, we made a horse-shoe! This was an exercise in bending, drawing, fore-punching, punching, back-punching and hot rasping to remove frog eyes left by the punching. Shouldering half of a discarded horse-shoe over the edge of the anvil with half-blows to soften the transition between different cross-sections, drawing out with sequential steps of S.O.R. (square, octagonal, round), and a little more bending yielded a hoof pick. A hole punched and drifted into the end of the handle and dressed up over the point of the horn, formed an eye by which to hang it.

In this manner the workshop progressed with welded eye hinges, welded eye pintals, eye welds in round stock, collar welding and joining support legs to branding iron stamps with a lap weld. Also, the group hammered out ribbon scrolls, fish-tail scrolls and half-penny scrolls. Our coal quality was not good and when welding our fires had to be cleaned every heat or two. However, from this we learned how to reach into the fire and draw out the sticky molten



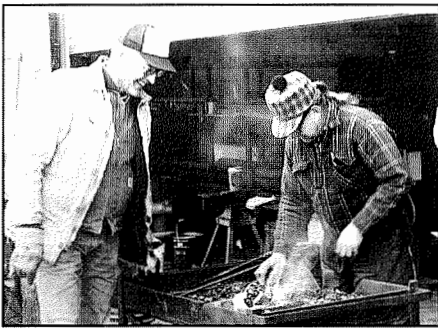
clinker and rebuild a good fire. After a demo on hardening and tempering, 3/4" round tool steel was provided for those wanting to make a cold chisel, pritchel or other tool of their choice.

As the workshop drew to a close, names and addresses and "if you ever get up my way" invitations were exchanged. Organizers of this event were laying out tentative next-year plans for a class-built project to be donated to a silent auction to benefit the Cowboy Poetry Gathering.

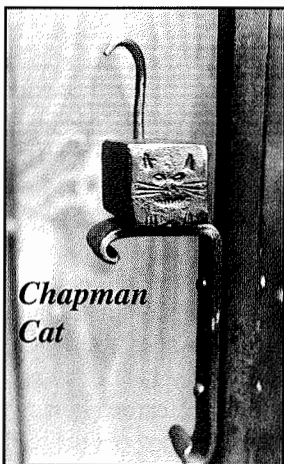
I believe the most valuable thing I brought away from this workshop was my notes. I found myself writing constantly during Frank's demonstrations. Even though Frank was a relaxed type of instructor, his dialogue was not idle conversation and the only way I could hope to retain a significant portion of this out-pouring of information was by taking notes: Forgotten information is lost information.

I would like to thank the N.W.B.A. for sponsoring my attendance at this workshop. My notes are available by sending a business-size, self-addressed stamped envelope to me.

Greg Hartell, 1277 Community Avenue, Klamath Falls, Oregon 97601



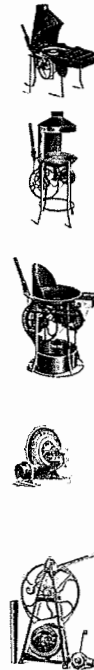
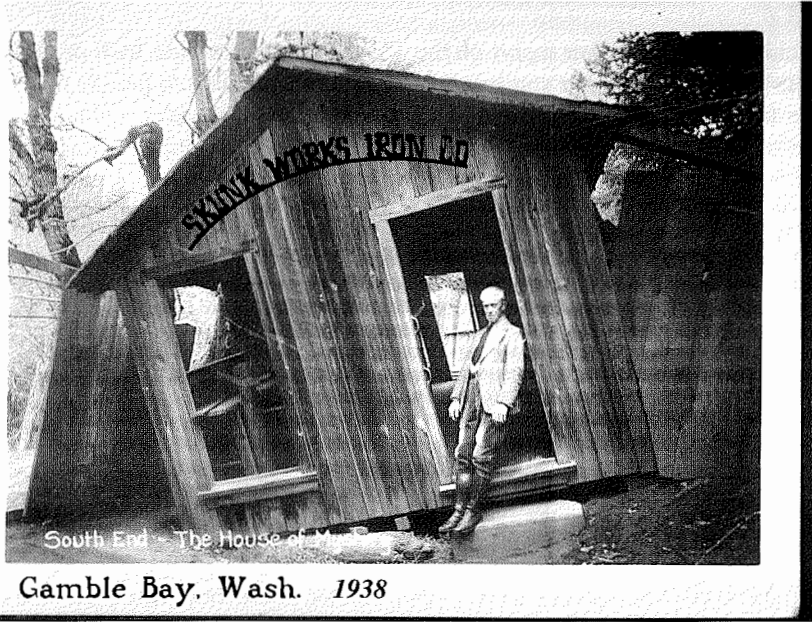
Greg Hartell and Frank Turley



winthrop

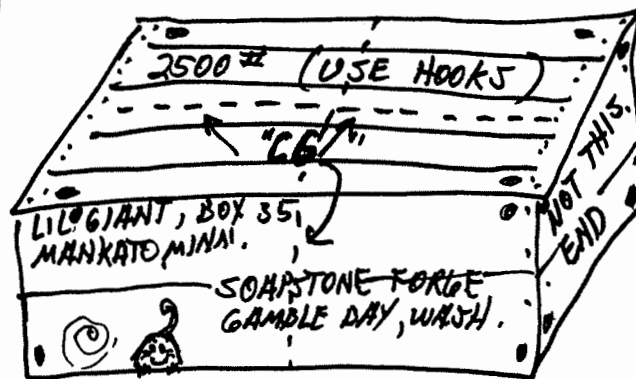
D.J. will have the coffee waiting!





SMEDLEY'S SMITHY

GRANDPA CRITCHFIELD GIVES "SMED"
HIS FIRST HAMMER.
JUNE 1953





THE ANVIL'S FARTHEST SIDE ...

By Bob Race

This morning, while I was watching for the weather report on the TV, they flashed an old Irish proverb that I thought you might enjoy—*You're not as young as you used to be, but you're not as old as you're going to be. So watch it!*

I would like to deviate a little from my usual stories and steal someone else's thunder. The masterminds, John Prutsman and Harry Newton, usually volunteer Mondays at Fort Vancouver. Both men's company is that which would allow one to enjoy the day, for they are each quite easy going and any mischief involved is lighthearted and even their victims appreciate the fact that they were chosen to be honored as part of their plans. All of this became more than evident when we had rather a tragic accident involving Mike Darrig, the Fort's resident blacksmith. It was late last Spring and Mike was walking down the wheelchair ramp from the office, slipped on the wet wood, struck his ribs on the railing, and hit his head. As a result of this fall, Mike is now out on sick leave, and is suffering from constant headaches. Both John and Harry feel quite bad about Mike's condition, (as we all do) and both believe that laughter is one of nature's best medicines. Mike has, but not overly so, a caution concerning safety and also a penchant for period strictness. Their solution was to attack these minor limitations by periodically sending him letters of the latest antics during their days of duty. Here are some excerpts from these thought-provoking letters:

LETTER #1

Dear Mike'

Well things are going great here in the Blacksmith shop. As you can appreciate Harry and I have things pretty well under control on Monday mornings.

You'll be glad to know we've been doing quite a bit of maintenance in the shop. Harry patched up the bellows with some duct tape and a soon as he gets it painted you should hardly be able to tell what happened. We were afraid the explosion may have damaged the new fluorescent lights we hung over the forges, but they seem to work most of the time.

Harry has been showing me how to weld. He's been trying to weld a patch over the hole we burned in your old tea kettle but he has been having a tough time getting it to hold. Is that thing made of cast iron? We also made two replicas of swords that were used during the 1840's. They look pretty good and the kids get a real kick out of playing with them. Incidentally we've been trying to make the shop a more interactive experience for the kids. One of their favorite things is learning how to use an axe. Some of the older ones are actually able to throw it hard enough to make it stick in the bull's-eye target we painted on the door. Another game they like to play is one we call "Heat, Hammer and Quench". Some of the smaller kids couldn't reach the anvils so we had to pile up some dirt around them.

We have been trying to implement some of the aspects from the lives of the historical blacksmiths. Did you know that the smiths were issued a daily ration of rum or whiskey? We think it adds a touch of authenticity and certainly makes the time fly. The other day Harry came up with a great idea to use the rest of that black powder. We've decided to shoot one of the anvils. I told Harry we should either move the anvil to center of the shop so we have a little more headroom and don't have to worry about it flying through the ceiling or do it outdoors, but Harry seems to think we should be OK if we limit the charge to about 8 ounces of black powder.

The shop is working real well. We've made a few changes that have really helped things. We found that you can start the tires in the morning without using newspaper and charcoal. About a 1/4 cup of paint thinner or kerosene poured right down the fire pot seems to do the trick. At first we tried gasoline but that caused a few problems. Incidentally, all of those fire extinguishers should probably be refilled one of these days. Regards, "F Troop" P.S.: If you want to stop by sometime, HAPPY HOUR starts at 11:00 A.M.

LETTER #2

Dear Mike,

I thought I'd bring you up to speed with what's been going on at the blacksmith shop. Shooting the anvil went really well. We ended up shooting it inside the shop right near where the grindstone used to be. Incidentally the guys in the shop really like the new skylight.

We finally gave up on trying to patch that old tea kettle you use to have. We replaced it with a GE coffee pot that works great. Until we have to fire up the wood stove again we set it right on top. Some of the guys said the chrome coffee pot doesn't blend in with the wood stove. It should look better once we spray the stove with aluminum paint. We laid some boards over the extension cord so it barely shows. Some people keep tripping over it, but I'm sure they'll get used to it after awhile.



We've been trying to promote a better understanding with other government agencies. We invited a guy from OSHA over for a tour of the shop and Harry gave him a welding demonstration. Those OSHA guys sure do get excited easily. He acted like he'd never been burned before and tried to make a big deal out of it. We told him to lighten up and that our guys get hurt worse than that all the time. Personally, I don't think he was very bright. I had to spell your name for him at least four times. Harry finally told him to quit trying to scare us with a bunch of legal threats.

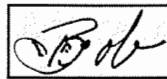
The kids are having a lot better time in the shop since we took those rope barriers down. Most of the kids think it's a great idea because they can get real close to the forges. One adult was a little critical of the new program but I set him straight. I told him he ought to stick to driving his ambulance and leave the blacksmithing to us. The "Blacksmith For A Day" program is also working out well. Some of the kids don't even get hurt. When the kids do get hurt they are usually pretty good sports about it. It's the adults who are always threatening to sue.

We're getting the shop set up for the candlelight tour. We found when you turn down the light and turn on the strobe light it looks just like an old-time movie. By the way, the new blacksmith costumes are great. Wearing tennis shoes instead of those clumsy steel-toed boots lets us get to the burn can a lot faster. We hope you're feeling better. Don't worry about things here at the shop. Harry and I still have everything under control. Regards, "F Troop" P.S.: We had to change HAPPY HOUR. It's now BYOB.

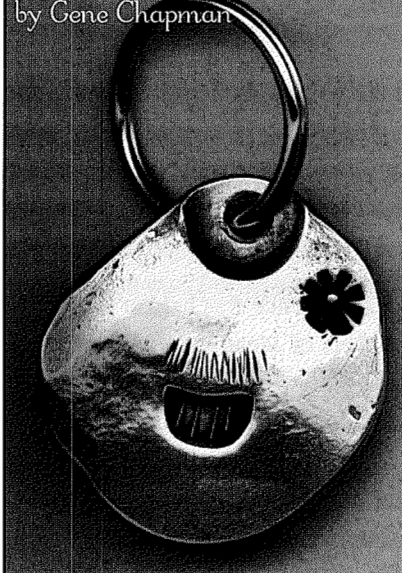
These are two of the four letters which I have and I will submit the remainder in the next issue. Generous thanks to John and Harry for the permission to print these letters, and best wishes to Mike for a full recovery.

A SUBTLE RESPONSE

Last Summer there was a young lady, about nine or ten, who wandered into the Fort Vancouver blacksmith shop. She had long blond braids down her back, hands casually clasped behind, and was wearing a Fur Trade-era period dress. Believing her to be part of the Annual Brigade Encampment for that weekend my inquiries were directed in that direction and the majority of her answers were of a taciturn nature. It was established that she was there only for the day and not really with the Encampment, but came with her mother who was part of the group which cares for the Fort's garden. She also informed me, in her brief manner, that she wandered into the blacksmith shop because she was bored of pulling weeds. When I asked how long her mother had been volunteering at the Fort, she replied, "I don't know. A long time, for my mother is quite old." "And how old might that be?" "I think about thirty three." I could not resist baiting the next question, "But she is not quite as old as your grandmother?" The answer was quite unexpected but most definitely honest and straight forward. "No. Because my grandma is absolutely dead." Subtlety wins once again.



Bob Race "Retirement Smile"
by Gene Chapman



According to Gene Chapman, retired guys have a certain "smile." Gene forged the one he says he saw on Bob Race!

"Quick Quench" Soap Solution Quench

For Mild and Low Carbon Steels. This is the fast quench that a lot of blacksmiths swear by. The original formula calls for:

5 Gallons of Water 5 Pounds Salt 32 ounces Dawn dishwashing liquid (blue) 8 ounces Shaklee Basic "T" Wetting Agent (accept no substituted Shaklee product)

Quench at 1550 degrees F. (light cherry red)

Expect 43 to 45 Rockwell C on 1018 mild steel.

Since the original formula its been discovered that with the new Ultra Dawn dishwashing liquid, you only need to use 28 ounces.

Also, if the Shaklee Basic "T" is not available in your neck of the woods, you can substitute a bottle of Jet Dry (dishwasher rinse agent). You will not achieve as good of results with the Jet Dry, but it will work in a pinch.

Remember, this solution is color-coded so that when it changes from blue to green it is no longer effective.

--Formula from Robb Gunter, Forgery School of Blacksmithing

Darryl Nelson workshop, Circa 1980

Northwest Blacksmith Association
P. O. Box 9203
Seattle, WA 98109

Fire Mountain Forge was the spot where over 60 of the nicest people you'd ever want to meet gathered to make short work of a barbecued pig and all the trimmings, and to get in a little pounding and talking. The weather was in the high 90's which kept activity in the Forge to a minimum, but there were plenty of die-hards who would light a fire under any conditions. So there was plenty to see and do. Congratulations to Terry and Darryl, with an able assist from Dave Phillips on extension cord; they finally got an anvil into orbit! On the second try (aw, hell-put the whole can of powder in) the anvil went out of sight above the top of the phone pole, and about an hour and a half later came to earth 18 feet from its launch point. Special thanks go to all the Carsons and Nelsons and everybody else who helped to make this a really outstanding day.



The 80s: Off to a Fiery Beginning--Tales for the Twentieth!

by Terry Carson

So much was happening in 1980 that it's tough to believe anyone was able to get any substantial amount of work done.

January 26th thirty-five of us headed to Mollala, Oregon and spent two days on a cold hilltop, but with warm fellowship and forges, at Russ Swiders shop, with demonstrations by Russ, Harry Robinson, and Jim Fleming. A business meeting was held where we discussed Chapter status and a motion was made and carried that we organize and start collecting dues. The festivities ended with Russ's shop being dismantled and packed up for his coming move to New Mexico.

In February, a meeting was held at Jack Slack's Blacksmith Shop in Pioneer Square in Seattle, where it was decided to use the California Blacksmithing Association charter, as our own with only minor modifications. Thanks for bringing it north, Mr. Rolstad.

March 30th a "Symphony in Fe-Flat Major by Ferro Battutto" was held at Enclume Forge in Seattle, hosted by Stuart Kendall and Jim Garret.

This was the first time for many of us to see power hammers used with the skill and intensity that made us aware that they were a valid and necessary shop tool. Little Giants, Mayers Brothers, Chambersburgs, Nazels—the magic names rolled off our tongues. Mechanical, pneumatic, steam—the options were debated and defended by their proponents. In July, the first issue of *The Blacksmith's Gazette* published by Fred Holder came out. *Hot Iron News* by Jack Slack and Chuck Powell was included on page 10.

Open forges continued on a monthly basis and in August the first West Coast ABANA conference was held at the University of California campus in Santa Cruz. Demonstrators included the Yoshihara brothers of Japan who demonstrated traditional swordsmithing. Starting with single refined ore from magnetite sand, they drew out, folded, welded and worked a beautiful blade complete to the heat treatment stage. An awesome demo with elements of both craftsmanship and religion, that was enjoyed by all.

In September, a work shop was held at Fire Mountain Forge where Ken White of England led us through the construction of a traditional-style gate. Heel bar, mortise and tenon joints, dog bars, hinges, etc. were all explained and forged. If we're lucky maybe Darryl will bring the still to be completed gate to the 20th where Ken can coach us through the final steps!

Columbia River II was held in October, with Russell Maugans showing us Timberline Lodge motifs that he employed in restoration work at the Mount Hood lodge originally built by the WPA. Harry Robinson, entertained us with forge welding, striking and hook and chain making demos all made to look easy with his 50-plus years of experience. Russ Swider and Jim Garret showed us techniques using air chisels and joinery that opened new avenues of design that can still be seen to be an influence on work today.

This time Dwight Irish led a highly successful iron pour that had us tapping the cupola for 80 lbs. of incandescent liquid iron every 15 minutes for several hours. An incredible experience that left everyone involved exhausted, proud, happy and in possession of cast projects as their molds allowed.

Mixed double-striking contests were held. I can't remember whether Jess Spromberg and Kathy Dobek, Jack and Jennifer Slack, or Darryl and Sue Nelson won. In any event the ladies all showed that they certainly knew how to use a sledge hammer and could communicate with their partners (When I nod my head, you hit it).

The catered food at this conference was the worst of any before or since (green hot dogs and macaroni & cheese as I recall) and we vowed at the time not to let an activity as important as this fall into incompetent hands again.

After this, 1980 wound down to a not so frantic pace and 1981 waited until April to get off to a rousing start at Russ Jaqua's Nimba Forge in Port Townsend.

Francis Whitaker, Russ Swider and Russel Jaqua demonstrated. We were treated to tool and hinge making, sculptural and animal head demos. Energy and enthusiasm remained high. J Carl Freedman took some excellent notes that were published in the newsletter, and are partially reprinted here.

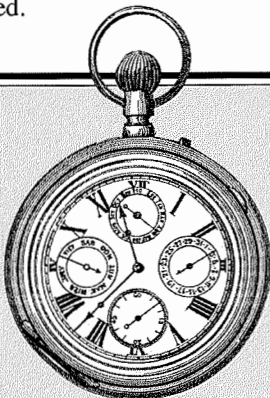
Fire Mountain Forge went "whole hog" August 9th with the first of what would become an annual event, roast pork with all the trimmings, cold beer and large quantities of hot iron being forged. The grand finale was the blowing of anvils with a new altitude record being set nearly every attempt.

Darryl and I had decided that if we fattened the hog ourselves it would be of superior quality so after buying a weiner pig from a friend we had to catch it. If you've never had to rope a pig in a two-acre pasture with downed trees and brush, while on a sidehill, with siblings and an angry sow hog helping, you've missed out on an adventure that everyone should have the opportunity to try. I swear that sow had teeth six inches long.

About this time reforging of anvils was in vogue, the recipe is simple: take one mis-shapen saddle-beaten anvil that generations of folks have hammered out of flat as well as having used the horn as a blunt instrument then build a large coal and coke fire, next fabricate bolt on handles, then submerge anvil in fire face down, when sufficient heat is obtained have four bodies remove anvil and set on solid surface. Two strikers stand and strike in unison on opposite sides. When you've regathered the material from the sides, flatter the top and tune up the horn, quench under running water (volume is important) and you have an anvil good as new.

If you are tiring of my rambling reminiscing please feel free to send send notes, corrections or photos to Terry Carson 7926 320th St. E Eatonville, Wa. 98328.

Next issue we will talk of Hephaestus and his beautiful golden handmaidens visiting the great Northwest, photo to be included.

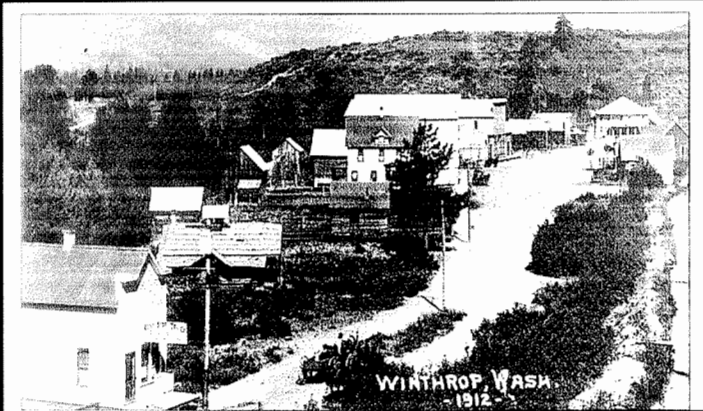


TIME

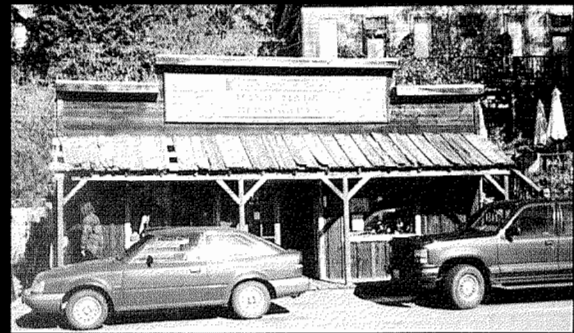
TO FINISH YOUR AUCTION ITEM FOR THE SPRING CONFERENCE. NWBA DEPENDS ON THE AUCTION PROCEEDS TO HELP BRING TOP DEMONSTRATORS. BESIDES, WE WANT TO SEE YOUR PROJECT DISPLAYED AT THE AUCTION AND THE PAGES OF THE HOT IRON NEWS!

WINTHROP!

In the Magnificent Methow Valley . . .

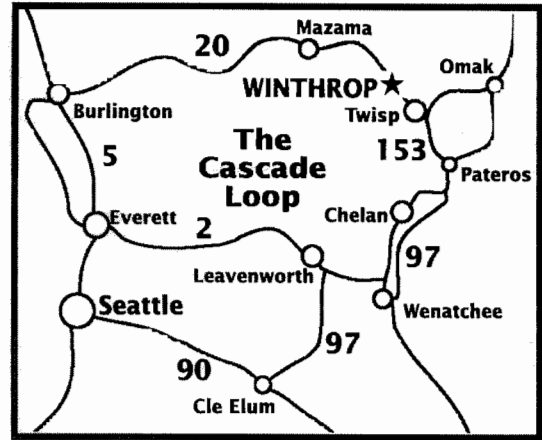
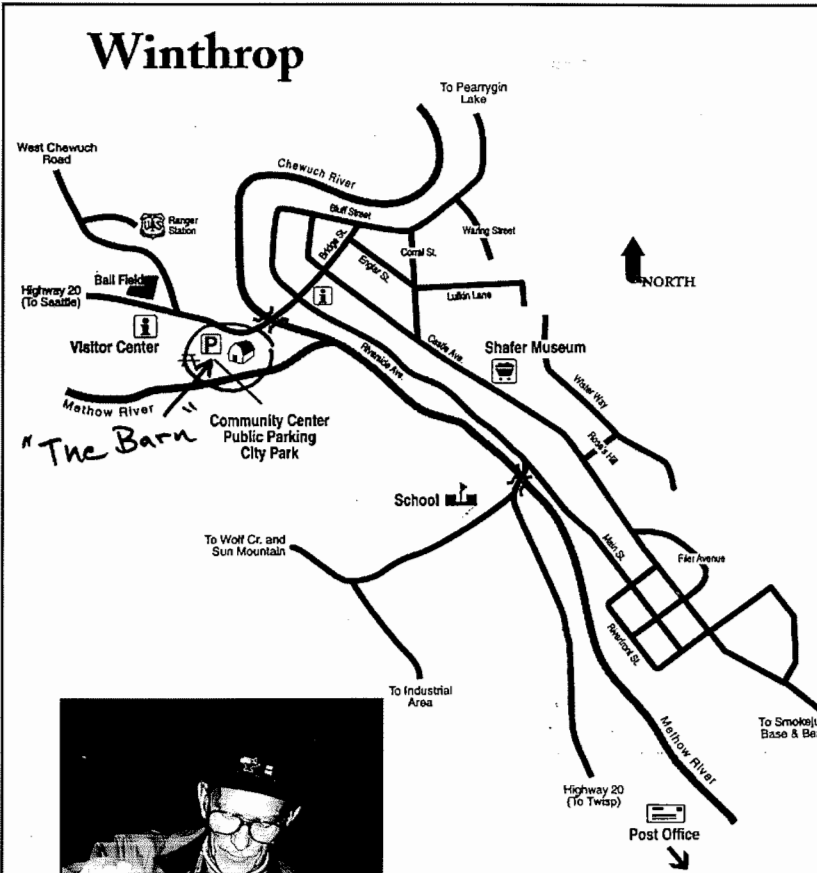


N.W.B.A. Spring conference
 April 30 -- May 1
 Israel's Uri Hofi & Striker
 -- Don't Miss One of the
 Premier Demonstrator's in
 the Craft!



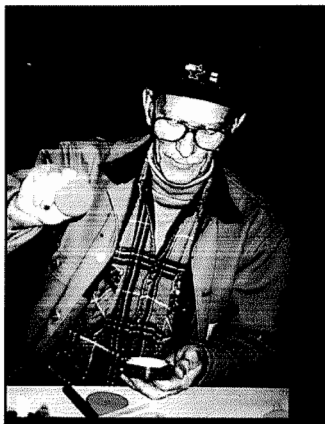
Don't forget to visit D.J.'s Forge & Iron

D.J. Stull and wife Carol are hosting the Spring conference in Winthrop. The last conference was the Fall conference in 1995. Uri Hofi will be bringing his own striker along from Israel to demonstrate a complete range of blacksmith technique . . . emphasizing hand work. Uri is humorous and a true showman. His ABANA demonstrations were among the most popular. Uri is truly a Must-See Demonstrator! Demos will start at 1 p.m. on Friday and 9 a.m. on Saturday and Sunday, which runs to noon. Costs are the same and registration will be at the door. \$50, \$10 for Spouse and kids over ten, with a \$5 Discount for an Auction Item. Winthrop is a rustic Old West town with lots of charm and lots of great little shops. The Saturday Night Banquet will be a Western Barbeque. The site location is The Barn, located one block west of downtown on Highway 20. There's plenty of room for a gallery so bring all of your show & tell stuff!



Lodging

- Best Western Cascade Inn 996-3100/800-468-6754
- Chewuch Inn & Cabins 996-3107/800-468-6754
- Damman's Bed & Breakfast 996-2484
- Hotel Rio Vista 996-3535/800 398-0911
- RiverRun Inn 996-2173 /800 757-2709 (two blocks from site and offers 20% discount)
- River's Edge Resort 996-8000/800 937-6621
- The Winthrop Inn 996-2217/800 444-1972
- Virginian Resort & Restaurant 996-2535/800 854-2834



Ken Tice, the Button Man, is ready to punch in YOUR name at Winthrop!

Points of Interest

- Winthrop National Fish Hatchery visitors welcome 996-242
- Smokeyjumper Base, "Birthplace of Smokejumping" Innovative and effective method of fighting forest fires began in 1939. Visitors welcome.
- White Buck Museum 996-3500
- Schafer Museum 996-2712 Mining display, buggies

Safety Glasses

Required for attendance at any metal-working operations.

Dogs

Nope. Except Cisco.

Camping

- Methow Valley KOA Kampground 996-2258
- Pine-Near RV Park 996-2391 (3 blocks from downtown)

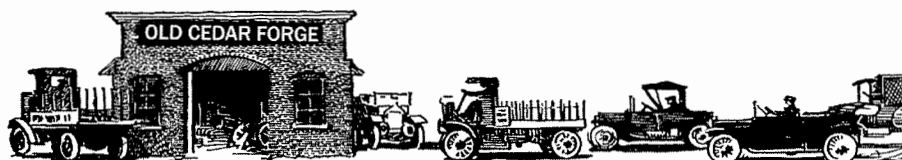
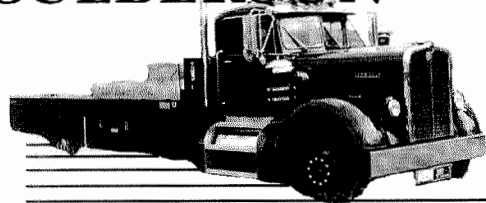
Contacts

- D.J. Stull shop & message 509 996-2703
home 509 996-3533
- Winthrop tourist info & lodging 888-4METHOW

Facts

- Elevation 1765 ft., Snowfall average 82"
- Washington Pass 5477 ft., XC Ski Trails 200 miles
- Snowmobile Trails 400 miles, Population, Winthrop 350, Twisp 1000, Methow Valley 3600
- Has oldest legal saloon in Washington: 3-Fingered Jacks;

CULBERSON



HAPPENINGS

NORTHWEST BLACKSMITH ASSOCIATION (NWBA) BASIC BLACKSMITHING WORKSHOPS

LOCATION: Old Cedar Forge **DATES:** April 9-11 and May 14-16

220 East Cronquist, Allyn, WA 98524 (360) 275-6769 Fax: 360-275-9579

INSTRUCTOR: Jerry Culberson, Artist Blacksmith

CURRICULUM: Class size is limited to 12 students—first come (pay), first serve.

Basic blacksmithing techniques and demonstrations. Hands-on projects include punch, chisel, "Poz" tongs, fireplace poker and ??? Many demonstrations including heat treating, forge building, tooling, and "wish I'd thought of that" ideas and techniques. Students take home what they produce in workshop.

COST: \$300 with \$150 non-refundable deposit required to guarantee space. Remaining \$150 due at registration Friday morning. Note. If you are not currently an NWBA member, two checks are required. One made out to Old Cedar Forge for workshop; a second check made out to NWBA for membership (\$35.00 U.S.; \$39.00 out of country). You may send both checks to Old Cedar Forge, but do not combine \$ amounts into one check. **ALL \$\$ ARE U.S. CURRENCY.**

THINGS TO BRING: Dress warmly. Bring safety glasses, ear plugs, work clothes (NO POLYESTER) and cotton or leather gloves, folding chair, leather boots or shoes (STEEL TOES PREFERRED). No tennis shoes. **NOTE. YOU MUST HAVE SAFETY GLASSES AND EAR PLUGS.** Be sure and bring a notebook and a couple of sharp pencils for notetaking.

TOOLS AND MATERIALS: All are provided, but you are encouraged to bring your favorite hammer, tongs and anvil (if it doesn't weigh over 675 pounds). Mark your tools in some fashion for easy identification when we checkout at end of session.

GRUB: Lunch is provided all three days as well as dinner on Saturday night. We eat blacksmith style—good and plenty of it!! (Vegetarians, just let us know so we can throw in a couple more turnips). Friday morning during registration sign-in, coffee/tea, pastries and fruit provided. If you wish to bring your spouse with you, s/he is welcome. Charge is \$5.00 per meal.

HOURS: Friday. 8.00 A.M. until ??, Saturday. 8.00 A.M. until ??, Sunday. 8.00 A.M. until noon, then clean-up and graduation/photo

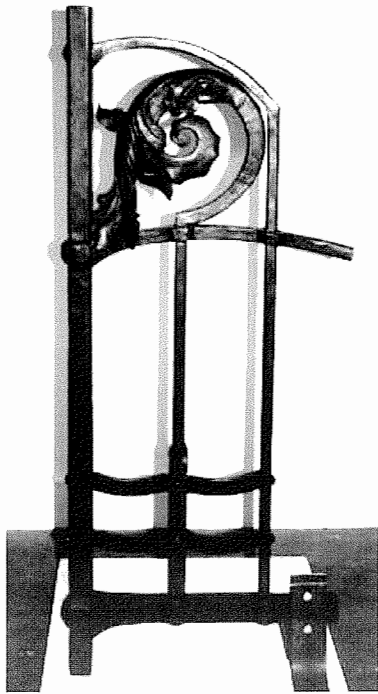
LODGING: Plenty of camping space at Old Cedar Forge (some electrical hook-ups; shower in the shop). Nearest motel is 6 miles. Belfair Motel, NE 2322 Highway 3, Belfair (360) 275-4485; ask for NWBA blacksmith rates.

CONTACT: Ina Culberson, Workshop Coordinator Phone: 360-275-6769; fax 360-9579

**don't forget to bring your gallery pieces along to
winthrop--where they'll wind up in the pages of the
hot iron news--and international fame (HIN goes to the Australian
chapter)**



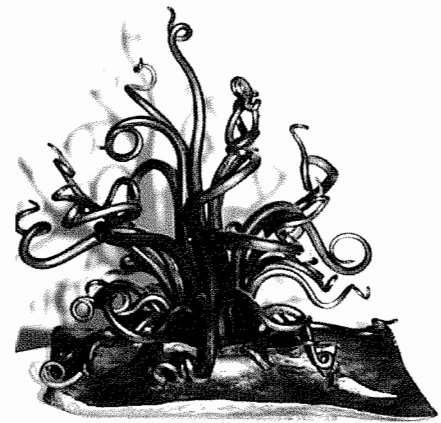
Pratt Gallery, continued . . .



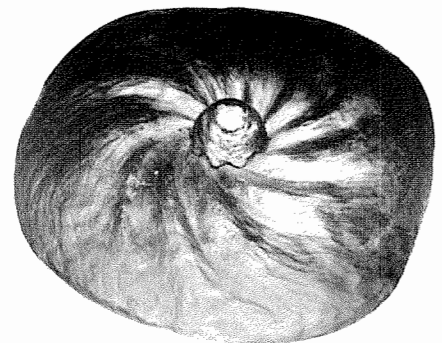
TURICO GATE SECTION ALICE A. JAMES



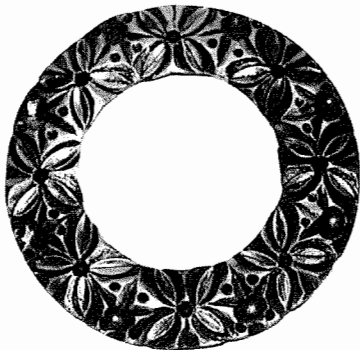
WRAPPED & PLEATED VASE JUDITH E.J. CALDWELL



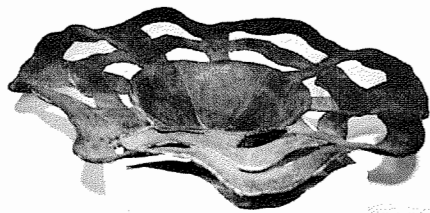
INVASION SCOTT SZLOCH



ALEX MONTGOMERY



MANDALA SCOTT SZLOCH



WAVY BOWL JUDITH E.J. CALDWELL



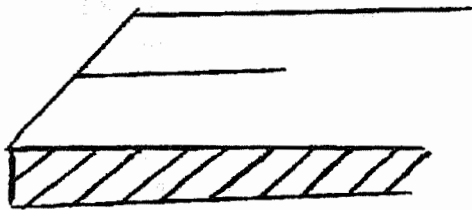
WEDDING BOWL JUDITH & DANIEL CALDWELL



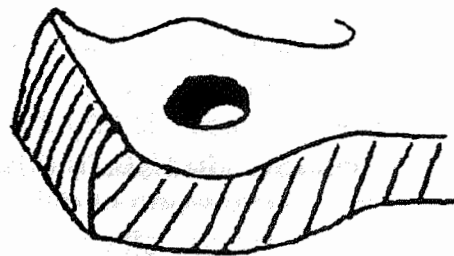
SELF PORTRAIT WITH GOLD, FROM THE LIFE & DEATH SERIES NORMAN J. TAYLOR



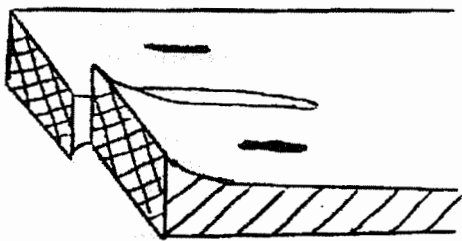
Frame Joint



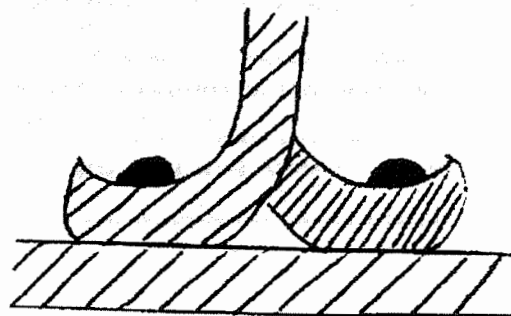
Split the end of the horizontal bar.



Upset to open rivet holes.



Upset ends together, but one up, one down.
Slit for rivet holes



Bend with fork to 90 degrees.

New England Blacksmiths



Dear N.W.B.A. Friends:

It pleased me so much to see Russ' name in the Hot Iron News. He was always so happy to have been in on forming N.W.B.A. And it was a high-light period in my life as well. All those great conferences and wonderful friends. Jack and Jennifer Slack, Darryl and Susan Nelson, Terry Carson, Russell Jacqua, Stuart Kendall, Jim Garrett. Now Alice and Japh are keeping Russ' big Chambersburg with sparks alive. Please put this check to further the enthusiasm.

With Loving Memories;

Betty Maugans, 940 Springdale Road, Atlanta, GA 30306

N.W.B.A. thanks Betty for the memorial gift for Russ Maugans. It will be used to purchase an item for the educational program.

Dear Members of the N.W.B.A.:

My sincerest apologies for this very tardy letter. I hope your club and members are prospering. It was in 1982 that I stole the prize 125# Skagit anvil in a contest to design your then-new logo. I was not a member of your club and I hope there was no hard feelings.

The anvil came at a turning point in my life. I had been partners in a retail quilt and fabric shop and enjoying my situation less and less. I had turned to reading about the manly art of blacksmithing to get away from fabrics, quilts, pillows and the sewing lessons I was teaching. Submitting my two designs to your club was a welcome diversion. I left the business later that year, and to support my wife and baby son I began to make photo props in my home shop. Funds were very tight when I received the anvil, but after that, things started looking up.

I have enjoyed the anvil in my shop. While I'm still not a blacksmith, a big chunk of steel is a great asset to pound stuff into submission. I just finished a prop for a Shake 'n Bake TV spot. The curve of the aluminum seat back for the chicken shaker was "refined" on the anvil.

I understand that you will be celebrating your 20th anniversary in the Fall of 1999. Enclosed please find a check for \$100 to add to the festivities and I'd love to see a photo of your August group. My family and I toured beautiful Washington State and the Skagit area some years ago and we hope to do so again.

Thank you and best wishes for your members to have a safe New Year.

Sincerely yours,

Edward S. Koizumi, Design
514 South Gunderson Avenue
Oak Park, IL

N.W.B.A. thanks Edward for the thoughtful gift--and he deserved to win the anvil!



Call For Artists . . .

The Bellingham Planning and Community Development Department is commissioning an artistic railing for the Amphitheater Overlook in Maritime Heritage Park. Fee is \$20,000 for a 52' railing. A jury has developed criteria. For details contact Tara Hardesty at the Department. 210 Lottie St., Bellingham, WA 98225. (360) 676-6880 or thardesty@cob.org.

Caniron . . .

Big to-do in Calgary, July 1-4, eh? This will be a mega-event. Every demonstrator in existence will be there. Big public auction--just look how much you can buy in Canadian Pesos! Commemorative anvils, Mounties, beavers, Norm Larson, Lake Louise, Aunt Louise, Louise Perranegra--you name it, they'll all be there! They're even busing in busloads of Japanese tourists from Banff just because they won't be able to understand Mark Pearce's jokes. If you survive all of this, you can stick around for the Calgary Stampede which starts July 9. It will then be a slow crawl back across the border. In short, Be There or Be Square! Need more info? Derry Cook will show up on your doorstep with a tract, quicker than a Jehovah's Witness. Or call (403) 284-8641. Or cyber-access at www.sait.ab.ca/caniron

Caniron Gallery . . .

A public exhibition gallery will be part of the festivities at Calgary. R.G. McRae is in charge: mcrac@cadvision.com Send us a picture of you trying to convince the U.S. Customs Agent that you didn't buy that candleholder in Canada!

Fold-Forming Workshops

Charles Lewton-Brain will do Fold-Forming Steel on June 27-30 and Advance Fold-Forming on July 12-15, both in Calgary. (403) 263-3955. If you take in all of these events in Canada this summer you'll have to apply for a resident visa.

Peter Ross . . .

N.W.B.A. Workshop on Box Joint Tools, November 5-7, 1999. Bob Race is coordinating. (503) 253-7334.

Bob Race . . .

Will do a workshop on, "Forging a Y2K-Compliant Bending Tool." This will be part of the Ross Workshop. No added charge.

Fort Vancouver Guild . . .

The Blacksmith's Guild at the Fort will host Peter Ross for a series of lectures and demos. November 12, 13, and 14. Peter has a special fondness for this setting because he can work from historical artifacts from the Fort's extensive collection. \$20 for the first one and \$15 after that! Contact Dean Moxley, 5537 NE 37th, Portland, OR 97211 (503) 284-6138.

N.W.B.A. Fall Conference

October 8, 9 and 10, Lewis County Fairgrounds, Centralia, Washington. This will be the Twentieth Anniversary Celebration. Featured demonstrators include James Horribin from England, Peter Renzetti of ABANA Gothic Doorknocker fame, Gabrielle Ridler from England, doing gold leaf, and many more. Plus a Killer Auction!

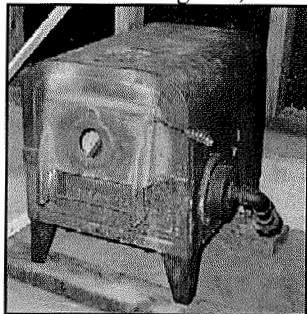


English Smith in training and planning to visit the U.S. in May for approximately 6-8 months on a study/holiday trip. Would be interested in hearing from anyone who could use a pair of semi-skilled hands for a couple of weeks or months. No monetary payment required but board and lodging would be a great help. Further details of experience and recent employment can be supplied. Lynda Metcalfe, 42 Harehills Avenue, Leeds, LS7 4EU, United Kingdom. E: lyndametcalfe@iname.com

Treadle Hammer and Forge . . . One Clay Spencer type treadle hammer, \$700. One Sandia gas forge fired once, \$650. Call Dannie O. Phillips at (801) 955-1643 or 432861945@msn.com

Metal Lathe 13" x 80", manufactured by Willard, circa 1908. Includes some tooling, \$1500. Paul Casey, (206) 862-3007.

Forge Small iron and steel forge, brick-lined and gas-fired. With regulator hose attachment. Electric forced air fan unit with it. Steel stand. Used as a tool room furnace. \$300 plus shipping and without stand, or \$250 U-haul from Portland with stand. Brad Hanna, 8214 SW Brookridge St., Portland, OR



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Deadline for the next issue is May 15! Send in your work photos, hot tips, articles, memoirs, 1998 Tax Return . . .

DOUBLE-BICK, 8640 CAST STEEL ANVILS

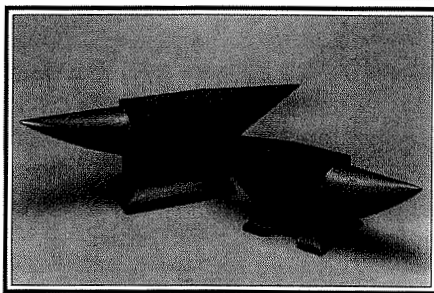
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Blacksmithing Books If Norm Larson doesn't have it, it probably hasn't yet been written. Norm's been a great supporter of N.W.B.A. over the years and makes the effort to attend a lot of our conferences so that members can see the books in person. Let's continue to give Norm the same support that he's given us! He's happy to discuss your needs. Call him anytime at (805) 735-2095. 5426 Hwy 246, Lompoc, CA 93436.

Francis Whitaker Scholarship for experienced smiths will be awarded at the John C. Campbell Folk School, Brasstown, N.C. for October 22-November 6, taught by Bob Becker. Submit by September 1 for the class. Details at (828) 837-8637. www.grove.net Tuition value is \$528.

Surplus Equipment? Tail-gate them at Winthrop. Add to the haggling, whining, sniveling.

N.W.B.A. Library of books and videos can be checked out from the Prez. See the last Hot Iron News for a list and also check it out in Winthrop.

Thank You

To all of the N.W.B.A. family who so generously gave me and my family kind support, prayers, thoughts and friendship during the times that we really needed it.

Don Kemper



Trout Memory Chest by Eric Ziner

Cover: Leg Vise by Terry Willis



Spring Walk by Eric Ziner, tiles by Melissa Greene, his spouse. Has an oval glass top on top of the flora. Tiles depict bears emerging in spring, surrounded by the flora that greets them including fiddlehead ferns, jack-in-the-pulpits, skunk cabbage, blood root, trillium and onion grass. Weight 100 pounds, 48"x35"x19".

HOT IRON NEWS
Jerry Kagele, Editor
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