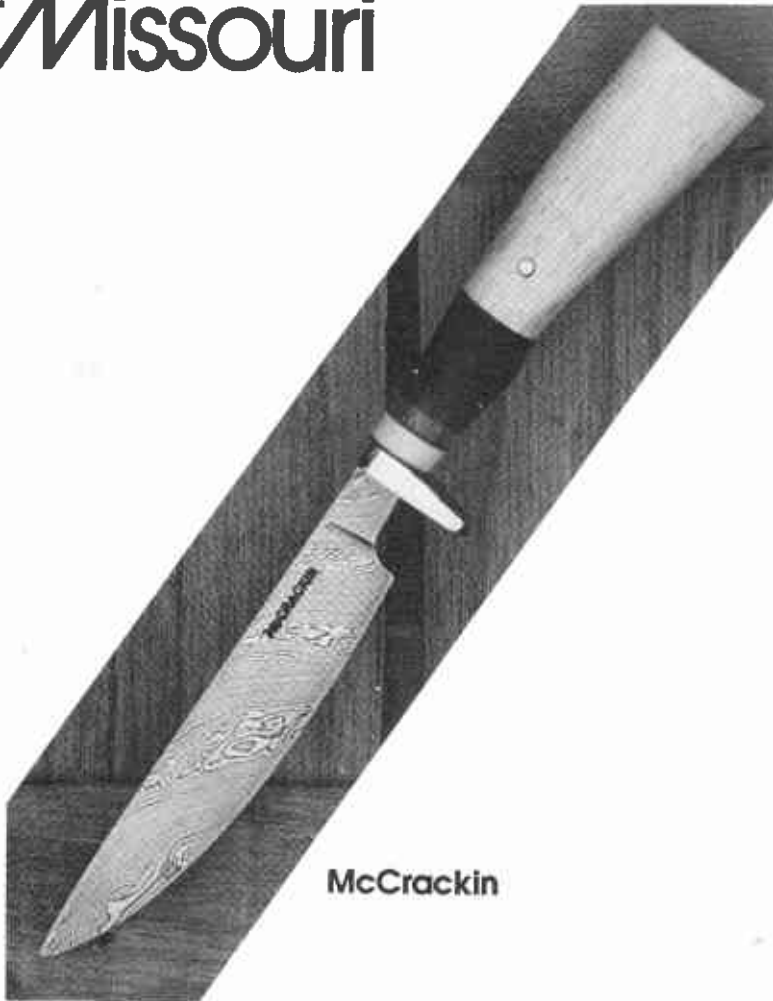


DECEMBER / JANUARY 1990-91

# Newsletter <sup>of the</sup> Blacksmiths Association of Missouri



McCrackin

## VOL. 7 NO. 6

The Blacksmith's Association of Missouri is a chapter of The Artist-Blacksmiths' Association of North America. This organization is devoted to preservation, advancement, and communication between blacksmiths of Missouri and surrounding areas. BAM's newsletter's goal is to support these ideas. Letters to the editor, tech tips, tools for sale, or any ideas which further these ends will be considered for publication.

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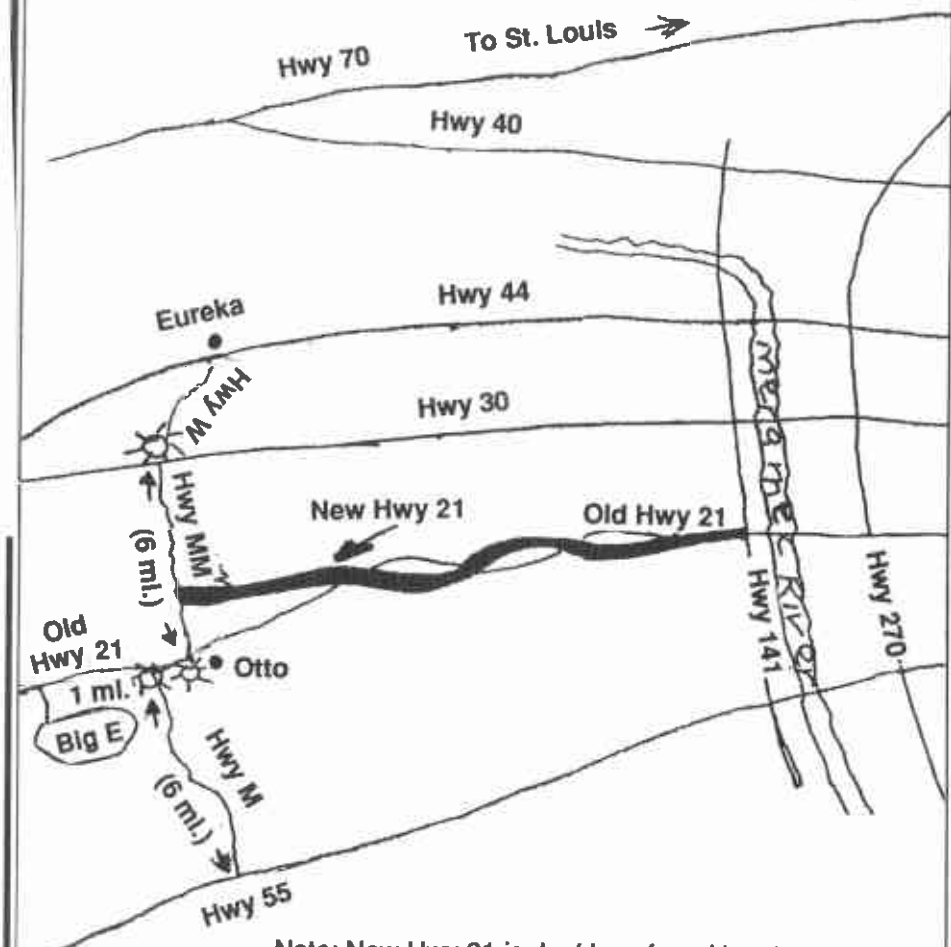
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## Membership Renewals

Be sure to check the date on the label of your newsletter. This is your membership renewal date. We will include a renewal reminder in your copy of the newsletter when your membership is due to expire. If the date on your newsletter label is not correct, please notify Bernie Tappel as soon as possible.

JANUARY 19 BAM MEETING  
Big E and Linda Hawkins  
3 Deepwoods Ln., Barnhart MO  
(314) 942-4251



1000.

On down the road it looks like Tom Clark's shop in May and Ken Markley's in September. Stay tuned for details. It is really great to see some new folks hosting meetings. It keeps things fresh and lets us know that BAM is a vital group.

## Nasty Gossip Dept.

How did Dan Siglar get a half page with photos in the business section of the K. C. Star? Looking good, Dan.



Note: New Hwy 21 is dual lane from Hwy 141 to Hwy MM. Heavy line is New 21

Directions: Big E is 1 mile West of Hwy M on Hwy 21. Yellow mailbox on Left. Watch for BAM sign.



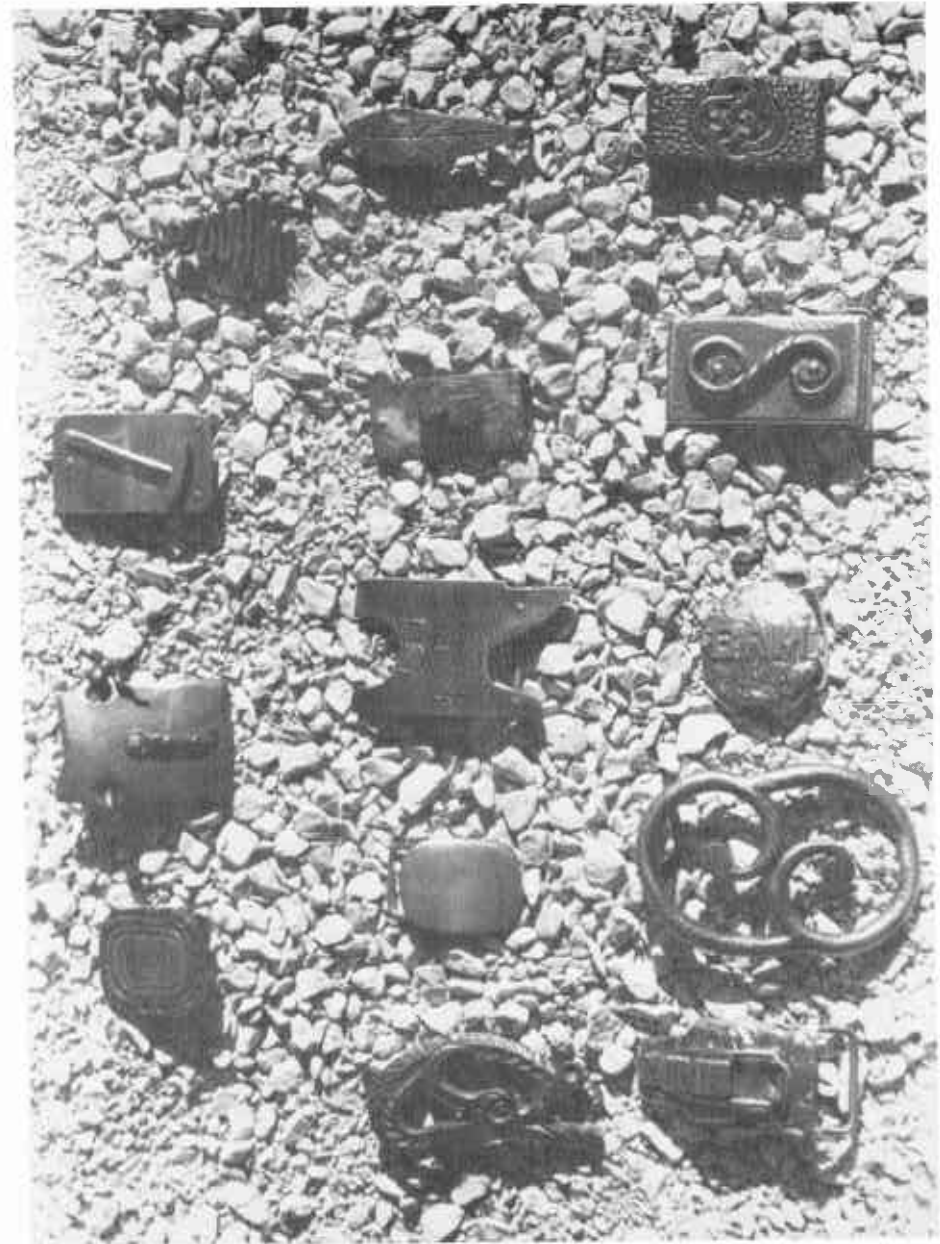
John has promised a writeup for a future issue of the newsletter.

This meeting was the occasion of the reappearance of Bob Patrick, founding father and original guru. Bob is gainfully employed in Arkansas, and looking good. In addition to talking over old times, Bob served as our demonstrator. Among other things, he demonstrated some forge welding techniques, including the welding and forging of a section of gun barrel by the spiral method. He also forged a half-pair of tongs from 1" square stock under the air hammer. A Bob Patrick demo is always worth catching, full of background info, safety tips, and other interesting digressions. Thanks, Bob. Don't be a stranger.

The belt buckle exchange was one of the best we've had. I got a nifty number with snub-end scrolls by Jim Waller. The range of techniques was impressive, from cable damascus to a dragon head to a stamped carrick bend.

## Shop Tip

Tom Clark recommends chain saw bar oil on the ram guides of your power hammer. He says it hangs on better than motor oil.



**Buckles were the trade item at the November meeting.**

# November Business Meeting

President Steve Baker, with help from some of the noisier members, herded reluctant BAM members into a brief business meeting. From notes scribbled on the back of a greasy paper plate, I reconstructed the following:

Treasures report: BAM is up about \$5200. Time to start thinking about useful and worthy things to spend it on (Note emphasis).

The coal buy was a success, and BAM came out \$943.20 to the good. There is great interest in another, but Doug will not be able to be our handler/depository. Volunteers? Preferably someone mid-state.

Doug is serving as Librarian for the Clifton Ralph power-hammer tapes. The list of borrowers is already long. We are asking every borrower to limit use to 2 weeks. Please be conscientious about this. I'm not scheduled 'til July as it is.

It was suggested that BAM might profit from between-meetings regional mini meetings. Specifically, if some of us could open our shops once every two months, or otherwise as arranged individually it might be of great help to those who have no shops or have difficulty getting to meetings. So far I have

Doug Hendrickson 314-637-2576  
Walt Hull 913-842-2954  
Steve Austin 816-781-1512  
Stan Winkler 314-883-2887  
Jerry Hoffmann 314-629-4061

willing to host. Call them for details. This is very informal. If you can offer your shop, please call Walt.

Tom Clark will take the May meeting, Ken Markley will host in September.

Jerry Hoffmann announced a farriers/blacksmithing workshop at his place Dec. 8. Hope it went well.

Please give Bernie Tappel your current phone # for the files. We'll be publishing a mailing list soon.



ABANA Office  
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(812) 888-6919

ABANA PRESIDENT'S MESSAGE  
November 1990

The results are in for the ABANA Board of Director Elections. You have selected the following new ABANA Board Members: Michael Bondi, California - 438; Clayton Carr, Washington - 373; Brad Silberberg, Maryland - 363; Andy Guttner, Texas - 333; Ron Porter, Indiana - 320. I encourage Brian Russell (305), Toby Hickman (282), Joel Schwartz (264), and Richard Schrader (220); to PLEASE run again. I also want to thank all of you who voted. I don't know where we would be without you. The new members will receive a packet to review and will join the team at Tipp City for the Fall budget meeting in November.

We have talked several times about the manner in which we select the new members. To date we are still going on the original by-laws. There has been some talk of making regions out of the US and Canada and having one board member from each region. So far, this has been rejected for several reasons. The foremost reason has been that in the past (things may change) it was felt that where there was the most interest in ABANA, we would find the most candidates running for the ABANA Board. Some areas have high concentrations of ABANA members and others have only the token 5 required to be chapters. Some areas with the greatest voice about this regional move do not even run candidates for the board during the general election. We would like to think that ABANA will be governed by the people that the members feel will best represent them -- the general member -- not any one region or any one person. However, we will once again look into the idea of dividing the country up into areas. The concern seems to be that if any one area has to run a candidate (because if they don't we would be short a board member), then we would end up with members who run because they have to, not because they really want to. The work load is too great to get a member who isn't really Gung-Ho for the job and it could also become a regional, political, hot box. I am sure that you can see the potential problems though one would hope that this would not happen, so we will give a look at the thought.

We have uncovered another box of brass anvils from the 1988 ABANA Conference. First come, first serve. Check with the ABANA Office and order soon if you want one. They are \$15.00, plus \$2.50 shipping.

The Chapter Liaison Committee has spoken to every chapter president in readiness for the board meeting. If we missed one, it was indeed not intentional and I ask any president missed to PLEASE call Clayton Carr 509-586-9278, or Ward Brinegar 505-438-6231, if you have any concerns to pass along to us prior to the Nov. 9th meeting.

PLEASE NOTE: The ABANA Office will be CLOSED October 29th up to November 13th. Our Executive Secretary is moving her residence and the office goes with it! (Don't worry, the phone number and P.O. Box will remain the same.) Following the move is the three-day ABANA Board meeting during November 9, 10, and 11 in Ohio. Chaos is not her favorite pastime, but she will try not to skip a beat!

*Betty Stigler*

# Departments

In addition to the things that recur in our pages, I'd like, with your help, to start a few more departments. These would be subjects which are not exhausted by a single article and which we keep coming back to in our bull sessions. Here are some that come to my mind:

Shop organization and Layout

Marketing

Technique (as opposed to "tricks"  
What's the right way to use a file?  
to sharpen a drill bit?)

Design

Other suggestions will be gratefully entertained.

This issue I'm initiating the "shop" department with an article from the Upper Midwest Blacksmith Ass'n. newsletter, but I'd rather know about your shop. Don't be shy if your shop is small. Actually, little shops are sometimes the most interesting; necessity makes us creative.

Ed.

## The Layout and Organization of a Blacksmith Shop by Pete Stanolius.

I hope this can be the first of a large number of articles about personal metalsmithing shops. I'll tell you a few things about my shop here and I hope many of you will write about your shops in future issues of the Metalsmith.

I'm proud of my new shop, but I'll probably never have one that is big enough. Over the years that I dreamed about it, I kept looking for articles and advice on how to get the best efficiency in a shop. As a hobbyist, I knew I'd never be able to financially JUSTIFY a large shop, so I'd have to simply build as much as I could afford and then have to live with it for a long time.

First I'll tell you what my shop is like and then I'll tell you what I would do differently now. I'll also offer some general hints that I have learned.

My shop is 20 by 24 feet in size. I think it is rather unique in that it is built within a 40 by 64 foot pole building with 12 foot high sidewalls that also houses a 20 by 20 foot gas heated utility room with 200 amp service, complete bathroom, clothes washing facilities and telephone. See figure 1. The rest of the building is one very large

garage (about 40 by 40 feet) with 16 foot wide by 11 1/2 foot tall doors that allow one to drive in one side and out the other. All this is connected to our house via a five foot long heated passageway.

Above the ceiling of the shop and utility rooms is a walk-up attic of over 800 square feet. One shop wall opens INTO the large building via a hose-made garage door. This door is 9 feet wide and a full 8 feet high. With some shuffling of portable equipment, I can drive my largest tractor into the shop without removing its exhaust stack. This door is insulated to R24.

The floor of the shop is 6 inch thick reinforced "6 Bag" concrete, except in the area of the forge and 50 pound power hammer. There, the floor is 18 inches thick. The concrete floor is protected from the elements by 2" urethane foam board buried vertically 2 feet down all around, including the cold aides inside the larger building.

Its walls are 10 inches thick; a combination of 8 inches of fiberglass and 2 inches of urethane foam. The ceiling consists of 6 inches of fiberglass and one inch of foam. The two walk doors that exit to the outside are steel, foam core doors with magnetic seals.

We used 1/2" sheetrock to cover the walls and took the time to put black popboard all the way around. After checking with industrial painters to see what the most popular color is, we painted the shop an antique white to maximize the lighting and minimize shadows.

There is no heater in the shop. We simply leave the door to the utility room open. The coldest the shop has ever gotten, with 30 below zero outside, was 56 degrees F.

Okay, that sets the stage for the shop itself. To begin with, it has its own 100 amp electrical service with 220 volts (4 wire) at 30 Amps on every wall. There is also a 220 volt receptacle out in the main garage for my buzz box welder. The shop uses 10 120 volt circuits. 3 of them power 6 foot Plugmold strips that have receptacles every 6 inches. There are duplex receptacles at many other "strategically placed" locations. All 120 volt wiring is 12 gage, 3 wire.

There is a central air compressor supplying air at 140 PSI to every wall of the shop, one outlet in the utility room and one in the main garage.

As you can see from figure 2, the shop is roughly a metal shop on the south side and a wood shop to the north. The blacksmithing area is to the southwest corner.

My forge has a brand new 6" deep 5/8" thick firepot and a brand new hood sending its heat into a double wall chimney. The outer wall is 14" in diameter and the smokepipe itself is 12". The draft is so good that it'll even keep coke glowing nicely with the blower off! I had been using a 125# anvil but have just switched to one weighing 185#. It was manufactured in 1831 and rebuilt recently by Ollie Juaire

I planned and built the shop building just as I was getting into Blacksmithing so I didn't realize how cramped I would soon be in the blacksmithing area. The 50# hammer and the treadle hammer were the two tools that I hadn't planned on. This makes access to the forge a little tight, but I don't mind it too much.

One thing I learned, was to put all my benches on wheels. That way, I can put together an efficient workstation or make way for vehicles or 4x8 foot sheets of whatever in just a few seconds. This is the way they do it in light industry.

I am cheating a little because I am still in the process of moving OUT of the utility room next door. I have my electronic bench in there and several storage cabinets. They may never make it into this shop.

The placement of cabinets on the walls will come next. Until then, I'll do a lot of running back and forth for hand held power tools, etc.

### Hints:

-Watch out for doors. My shop has lost too much wall space to doorways and doors. My own requirement that I have a full sized garage door only contributes to the problem. Doors eliminate the possibility of hanging something on the wall or of putting something permanently in place in the floor space directly in front of it.

-Somebody gave me an old fashioned carpet sweeper some years ago. It is great for quick clean up with no cords and no noise.

-Locating the radial arm saw, the planer and the jointer are real tough problems in this shop. You need to allow for at least an eight

foot long board to be run through. My setup just barely allows this for the saw and the planer, but I have to move the jointer (the lightest tool) for pieces longer than about 4 feet.

-If you pour a concrete slab, spend the few extra bucks to have the floor treated to resist stains. This treatment keeps oil and coal dust from getting into the pores of the concrete. This is no big deal if your shop is used only for blacksmithing, but you don't want to be picking up dust forever when you are doing woodworking projects.

That about covers my shop, some of the things that are super about it and some things I'd like to do differently. I hope I'll hear about YOUR op in a future issue.

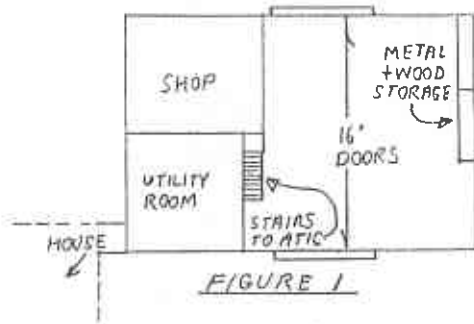


FIGURE 1

NA

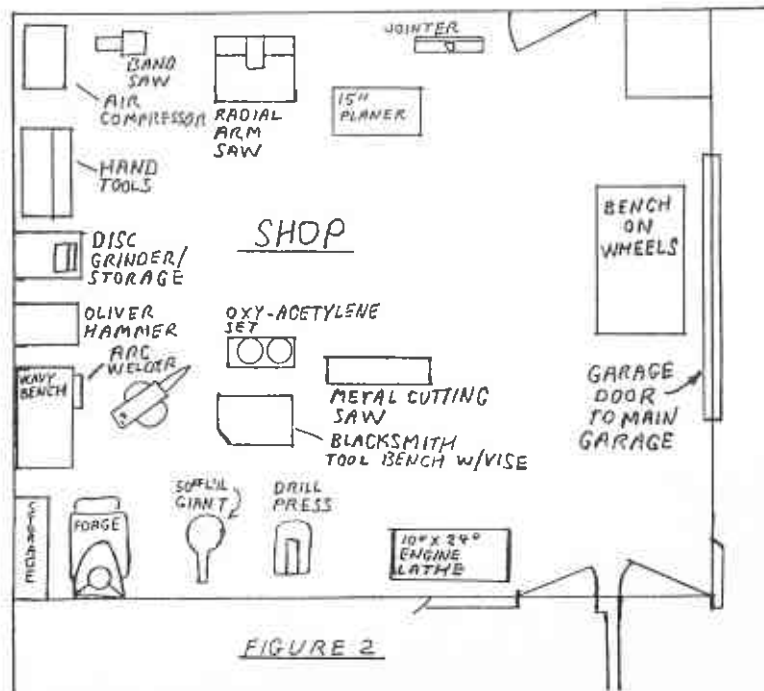


FIGURE 2

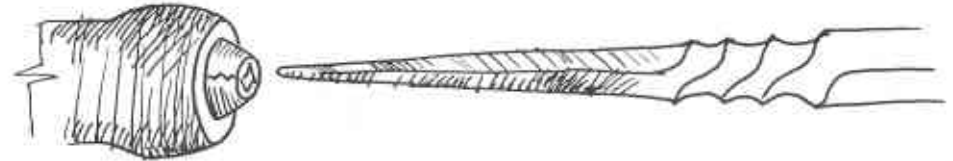
## Using a Brace as a Twisting Wrench

by Dr. Iron

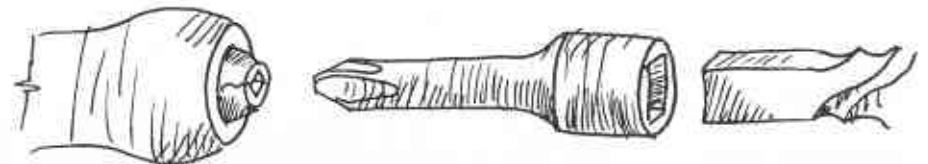
As a production smith I'm always looking for ways to improve both my speed and the quality of my products. Here's a tip that did both for me. One item I make involves tapering a 5/16" round down to a point and twisting it 2" back from the point.



To accomplish the twist I put the stock in my vice, heat the site with a rosebud, slide my brace over the point and twist to my heart's content. Something about the geometry of the brace, vice and me makes speed and control happen simultaneously.



You can also take a phillips screw driving tool from your socket set and chuck it up in your brace to give you a 3/8" or 1/2" twisting wrench. You will have to hammer the stock down just a tad to get it to fit the socket.





# Wanted

I would like to buy a 150 or 200 pound anvil.

Larry Milligan  
Rt 1 Box 205  
Naylor, Mo. 63953  
Ph. 314-399-2631



Update:  
November 1990

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Cheyenne, Wyoming 82009  
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W 1-800-522-2993

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ABANA OFFICE/LIBRARY  
Janette Franklin, Exec. Sec.  
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Nashville, Indiana 47448  
Ph: (812) 988-6919

This is the shipping list for BAM's copy of the Clifton Ralph power hammer tapes. We keep them moving you must ship to the next person on or before the date under your name. PLEASE BE PROMPT. Remember, the next person loses if you ship late. Also remember to insure the tapes for \$200 when shipping.

Mark Wilhm  
P.O. Box 477  
Cotter, AR 72626  
501 435 2325  
Dec. 8

Hank Knickmeyer  
6300 Crosscreek  
Cedar Hill, MO 63016  
314 285 3210  
Dec. 22

Earl Hawkins  
3 Deepwoods Ln.  
Barnhart, MO 63012  
314 942 4251  
Jan. 5

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Potosi, MO 63664  
314 438 4725  
Jan. 19

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314 838 0080  
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618 667 7003  
Feb. 16

Vernon Fischer  
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314 365 1952  
Mar. 2

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John Dearing  
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Mar. 30

Ken Markley  
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July 6

Walt Hull  
2043 Massachusetts  
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913 842 2954  
July 20

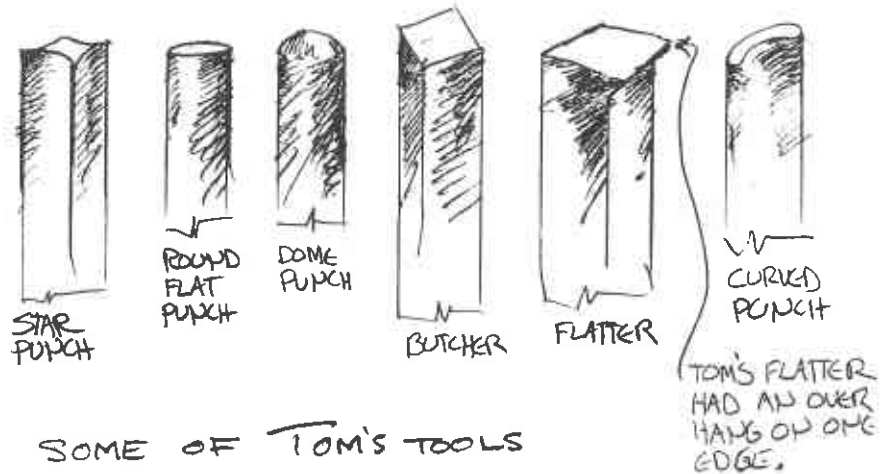


# Tom Latane's Demo at Alfred

by Doug Hendrickson

Tom's work is very ornate with delicate and complex details. His tools are small butchers, flatters, punches and fullers. We all know a blacksmith must think ahead several steps in order to realize the end product. The nature of Tom's work is so complex that thinking ahead is of monumental importance.

Quite a few tools are necessary to achieve the designs and forms Tom forges.



In order to lengthen the life of his tools Tom strikes them with an annealed hammer. The soft hammer face marks and mushrooms but the tools don't; Tom feels it makes more sense to replace one old hammer every once in a while and save wear and tear on the punches.

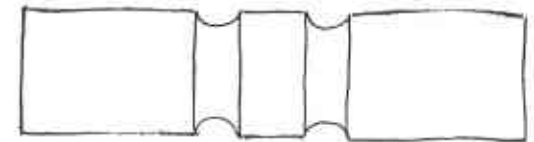
Tom's demo was all business very little chit chat.

This is a drawing of Tom's demo piece.

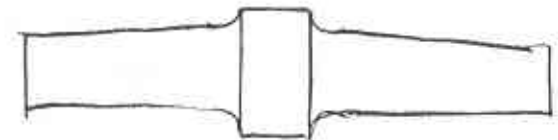


1 Tom Began with a 4 x 1 1/4 x 1 1/4 block of iron

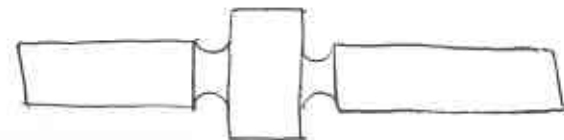
2 Fuller



3 Draw out

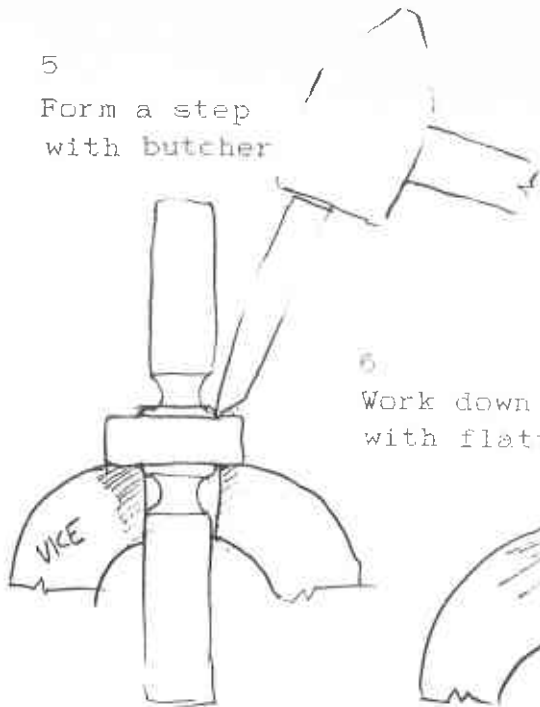


4 Fuller again to set the groove. Tom uses a spring fuller for this procedure and turns the work often, checking for alignment of the stock in the center.



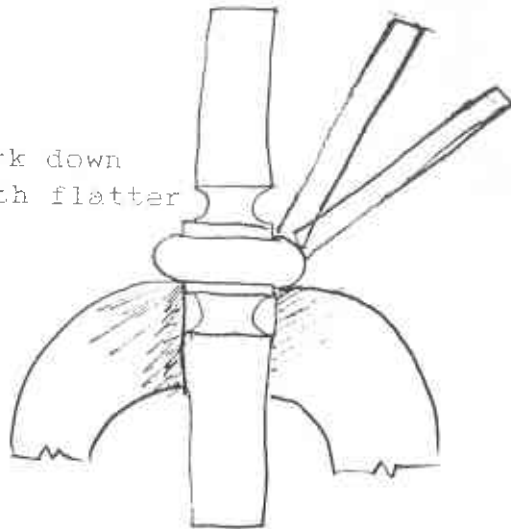
5

Form a step  
with **butcher**

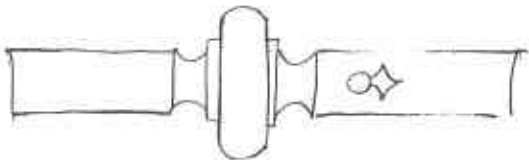


6

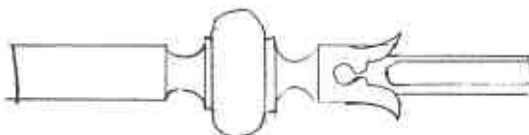
Work down  
with flatter



7 Punch pattern by beginning with a round nosed circular punch then square up the bottom with a flattend round punch. Use star punch to set edges of leaf form.



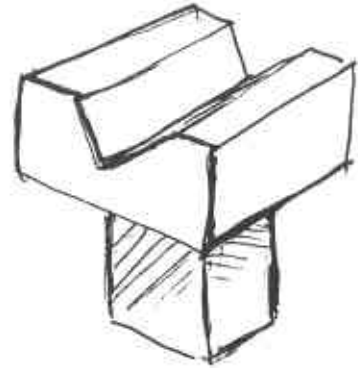
8 Define the edges and points of the leaves with chisels and flatter and set them while drawing the shaft out to an octagonal cross section. Finally cut the tips of the leaves loose and bend them out.



9 After forging, punching and chiseling out the piece, Tom worked it cold with files, chasing tools, and chisels to refine and define the edges.

10

A back up swedge was used to prevent malforming the other side. While working on the edges, otherwise, a helper simply held the piece on the anvil while Tom worked it.



ABANA  
P.O. Box 1181  
Nashville, Indiana 47448  
(812) 986-6919

Executive Secretary  
Janelle Franklin

PRESIDENT'S MESSAGE  
December 1990

Dear friends,

What a month! We have accomplished a lot during November, the primary load being the Board Meeting in Ohio. We are on very solid ground now, and we can really dig into doing the things that we have all so long awaited, that being, increased membership benefits. The chairman of the Membership Services committee have outlined some of the programs going into effect for you in this mailing.

These are exciting times to be on the ABANA Board because so much is going on, and we are doing so very well financially. It is amazing what you can accomplish when you have fifteen people all working towards a similar goal. Keeping everyone working and on task so that no one person is in the overload mode, is a good management challenge. You have to bank on the personal enthusiasm of every Board member, and draw on their individual belief in what they are doing. We are doing that very well and the results are certainly apparent for all to see. We are meeting the challenges set forth in the by-laws, and can look forward to a bright future for ABANA, and her individual members.

The most important goal for ABANA is to serve the individual members, and this Board is going to hit that challenge square in the face. Treasurer Bill Callaway will give you the 1991 Budget report in the next issue of *The Anvil's Ring*. We were in the Board Meeting when this latest one went to press, so you will get the report in "The Ring" coming out in the Spring.

We elected officers and they are as follows: President-Dorothy Stiegler; 1st Vice President-Michael Bondi; 2nd Vice President-Clayton Carr; Secretary-Hans Peot; Treasurer-Bill Callaway. We have rearranged some of the committees, and our Executive Secretary, Janelle, is sending each Chapter a list of those committees. The committee chairmen addresses and phone numbers can be found on the enclosed Director List. We hope this will assist you should any questions arise in any area.

We of the ABANA Board wish to thank Emmert and Jane Studebaker for their generous hospitality extended to the Board during this meeting. The three days spent at the lovely Studebaker Homestead were intense, but rewarding. Thank you Emmert and Jane.

*Dorothy Stiegler*  
Dorothy Stiegler  
ABANA President



## Safety

---

by Walt Hull

Dear Professor Safety,  
I was wondering what Dr. Safety knows about tendonitis - tennis elbow, or whatever it's called...

John Sherwood

Dear Prof.,

When I started smithing, it just seemed like good exercise. You know, make a poker, break a sweat, have a beer. But now I'm working a lot more, and well, what can you tell me about these pains in my lower back?

Stoop

Dear John and Stoop

Prof. Safety knows a lot more about these things than he wants to. I hope some of it will be useful.

What we forget is that people who do physical work are athletes. We suffer the same kinds of injuries as runners, tennis players, gymnasts, or anyone else who subjects himself to repeated physical stress. Those of us who are 18, limber, and fast-healing find it difficult to take these risks seriously. Those who are say, 40-ish and wondering how they're going to fill an order for 100 twisty widgets with a sore wrist start to take them very seriously.

So what to do? On the subject of elbow pain. I draw from my own experience, the advice of my doctor, and what I can steal from your

letter, John, and the literature you sent. (By the bye, loved your bottle opener). On lower back pain, I pass on the advice of our own Bert Elliot-Francis, who, as physiologist and production smith, is in a special position to address these questions.

There are two sides to injuries brought on by chronic abuse (Yes, Bubba, I'm talking about you): Prevention and treatment. As usual, the street value of an ounce of prevention is 16 times that of cure.

First, if you're going to do anything strenuous for a period of time, you need to be in shape. Here's a few simple exercise for the back:

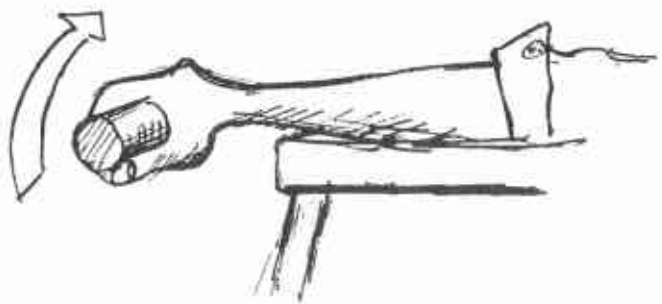
(1) Sit-ups (yes, sit-ups strengthens your abdominals, not your back. But your gut holds up your back from the front. Trust me.): Put your feet and lower legs up on a couch or chair. Raise your torso about 20 degrees, leaving your lower back on the floor. Hold "for a groan or two."

(2) Same with a twist. Your abdominal muscles have some criss-crossing sets that need strengthening. This time, imagine trying to touch your right shoulder to your right knee, and then vice-versa.

(3) Hammering with one hand will develop the muscles along one side of the spine and not the other. Exercise the other side by lifting a light weight with a hammering motion with the other hand. Say, 20 repetitions a day.

(4) Lie on your belly on the floor. Arch up, raising feet and shoulders off the floor hold for a few groans. Repeat 3 or so times. Immediately roll over and stretch out your back by touching your toes with one leg back and the other extended.

For the elbow, John, a few extensions with a light weight can save you a world of hurt. Take a weight of 2 to 3 lbs. (I use a piece of 1 1/2" round bar about 6" long), and do this about 20 times, first with your arm bent 90 degrees



and then at full extension. There are variations with sand bags, broomsticks, etc.. They all work the same way.

Ok. Now suppose you're in shape. You still need to be kind to yourself at work. For the back, the elbow, the wrist, the ankles, for everything, WARM UP. Don't just grab a four pound thumper and start wailing. One trainer I know says run, jump rope, do calisthenics, or whatever to get your pulse up to 110 or so. Start to sweat before you start to work. Sudden strain on cold joints is bad, bad, bad. And before you warm up, stretch. Here's what Bert says about the back: "I've found the best way to wake up my back is the 'cat' postures." On hand and knees.

(1) Exhale, and pretend your a cat arching its back. Hold a second or two.

(2) Inhale and arch the other way. Hold. Do it slowly. Relax and enjoy. Repeat 10 times.

Personally, I just mentally walk around my body and stretch anything that seems tight. Pull slowly til it almost hurts, hold 'til it quits hurting. Relax. Stay with stretching and you'll get to like it.

Joints are terribly vulnerable, and, once injured, slow to heal. Inflammation feeds inflammation. If you have a sore joint, it may help to support it with tape, an ace bandage, or a brace. Catch me, or Bert, or Gary Tash at a meeting, and get an earful. Many doctors and trainers recommend

ibuprofen or aspirin, but be warned that chronic use of drugs may have it's own problems. Check with your physicians, and don't be afraid to ask questions.

While working maintain good posture. Try not to stand the same way all the time. When standing at the vice or grinder for a long time, stand slightly pigeon-toed, with your knees slightly bent.

If you do a lot of power hammer work, make a stool. Not only is it easier on your back to work sitting, it may give better control of the treadle.

Have your anvil at the right height. If your back hurts, or if your shoulders do, change it.

If you're "playing hurt," be especially careful about the warm-up and stretching, and ice down the sore joint afterwards for 15 minutes.

Yeah, I know. You don't have time for all this fitness schtick. But watch Bert forge for a few hours, and see if you get as much done. And talk to your Doctor about the price of orthopedic surgery. Take care of the ol' bod and it'll take care of you.

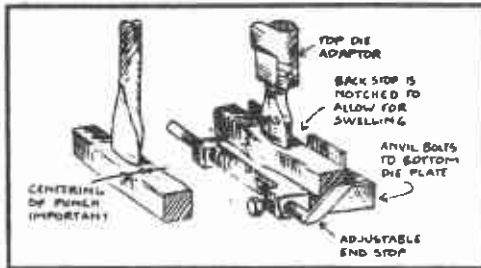
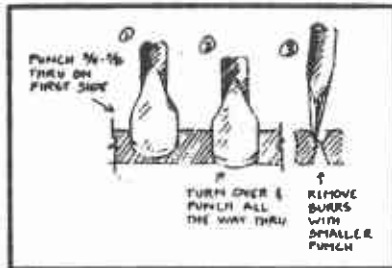
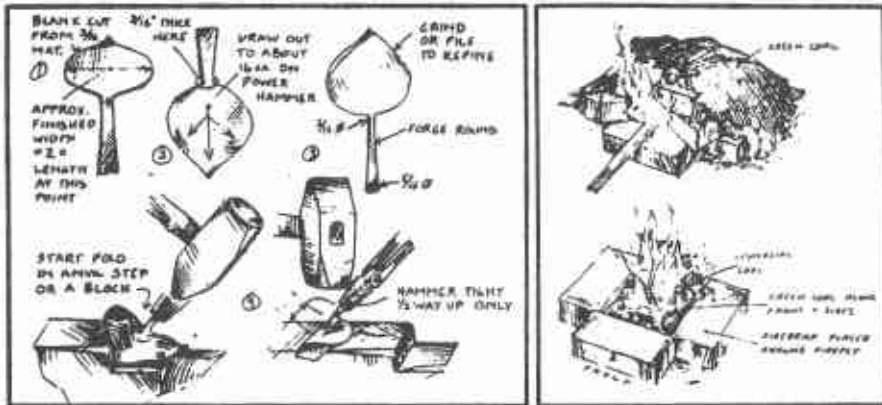
Prof. S.

ERRATUM: The aircraft control cable for your hammer spring should be 1/8", not 8" as stated. Can't Prof. Safety get anything right?

Please send your safety questions, concerns, tips or corrections to Walt Hull, 2043 Mass., Lawrence, KS 66046. Neither the author, the newsletter, or the Blacksmith's Association of Missouri pretends to be exhaustive or infallible. It's your shop and your safety, and you are responsible for them. We only hope to help by increasing awareness of hazards and steps to avoid them.

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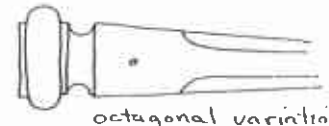
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**Variations** (Courtesy "Metalsmith" 14 No. 2)

Stamping (hot)



Square bar  
Mark for circle (between leaves) and leaf tips



octagonal variation



Stamp circle with rounded stamp (to locate on center mark) then flat bottomed stamp

Stamp accent under circle  
Stamp star shape above circle



Press metal back from leaf tips  
Work in "V" block to join lines from both sides of a leaf tip

Filing



File to refine form making corners of fuller sections and steps meet. File and step below leaf area

Chasing (cold)



Hold in vise to chase around leaves to refine shape and planish. Peel back leaf tips cold and file to make smooth curve. Chase veins at corners.



Chasing tools are short to prevent flexing

