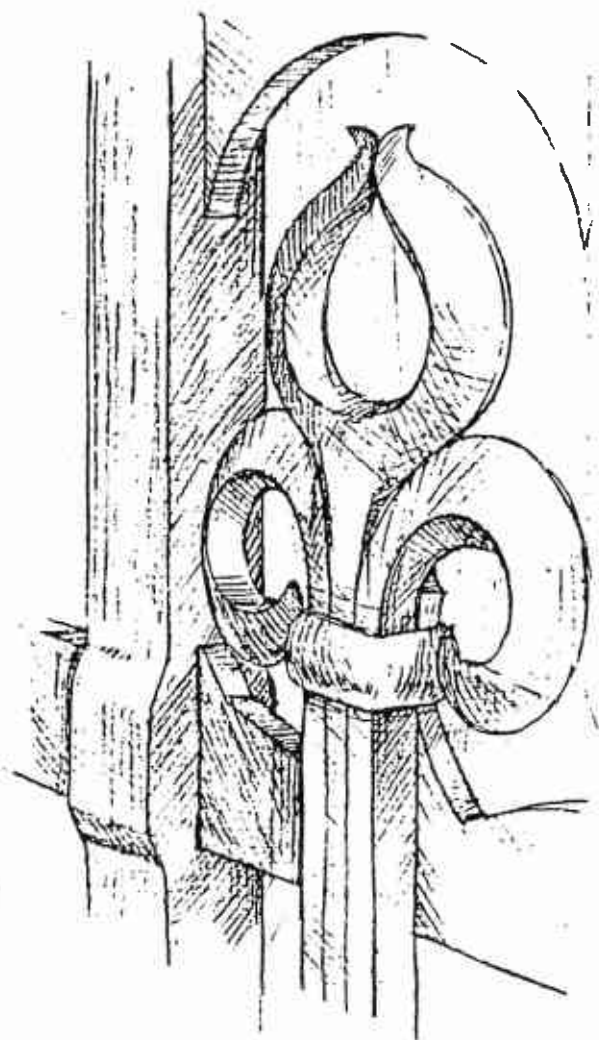


# Newsletter<sup>of</sup> Blacksmiths Association of Missouri



June - July 1988

vol.5 no.3

The Blacksmiths' 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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Memberships are for the calendar year, January 1 to December 31. Dues are \$15.00, which includes a subscription to the bimonthly BAM newsletter.

Please make checks payable to Blacksmith Association of Missouri.

SEND CHECKS TO: Steve Austin  
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#### MEMBERSHIP APPLICATION

Membership in ABANA includes a subscription to the Anvil's Ring ☐ New Member ☐ Renewal

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# May Meeting

Our May 28th meeting at Colin Campbell's shop was well attended with several new members signing on with BAM. The meeting began in the usual fashion with milling around, greetings and several impromptu demos at the forge while we waited for the guest demonstrator to set up. Ken Woods of Dillon Industries International began the demonstration of the Dillon MKIV welding and cutting torch with discussion of exactly how and why his equipment worked. Ken's good humored presentation, technical proficiency and amazing equipment kept us riveted, or rather "welded", to his demo. We are enclosing the info sheet on the Dillon torch elsewhere in this newsletter. It explains the details much better than I can.

After Ken Woods' demo, we began our business meeting. Several ideas were kicked around for another fund raising project. Tom Clark of Potosi is currently involved in building a massive game room for a client who is involved with games of all sorts. Tom felt, if we could develop any unique games, or even iron game paraphernalia, his client would probably be interested. Some one mentioned an iron pool cue rack. If anyone has ideas, do call Tom or present it at our July meeting.

Another idea, which is already in the design stages, is a 2' by 4' butcher block food preparation island with iron legs and an overhead pot rack. We will also make lots of

kitchen implements to hang from the rack, such as choppers, skillets, dippers, forks, etc. Several of our members are building new showrooms and we should have no trouble selling this piece. The idea here is to build your share of the project in your shop. When we have all the parts and pieces finished, we will meet and assemble the whole thing like we did with our room divider project. Speaking of the room divider, Stan Winkler sold it. Steve Austin took it to Kansas City, cleaned it up, and finished it, and the Grubby Little Smith sold it. Thanks Stan!! If anyone has any ideas on the butcher block project call Jerry Hoffmann or Doug Hendrickson.

The workshop committee, Jerry Hoffmann, Bert Elliot, and Stan Winkler, have developed an interesting idea. This year, instead of bringing in an outside demonstrator for our two day workshop, we'll search the ranks of our own membership for talent. We'll call it "BAM'S GREATEST HITS". (See the proposed logo elsewhere in this newsletter).

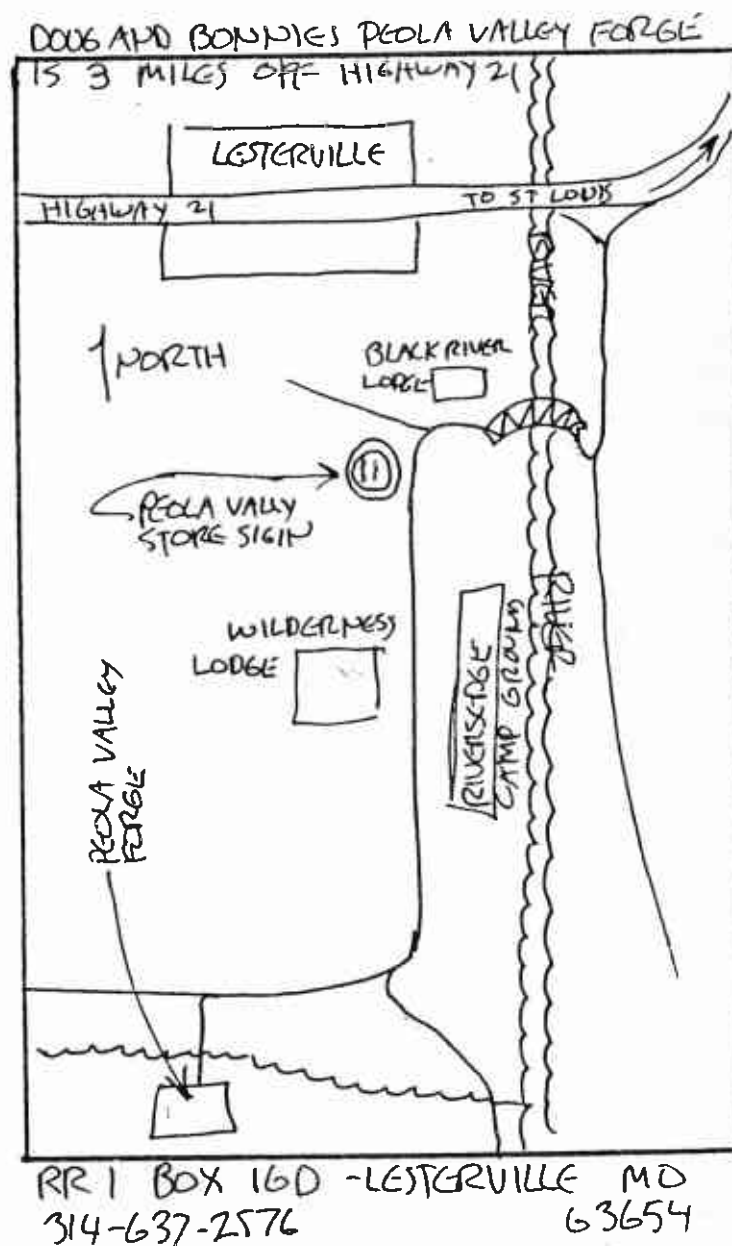
Bernie Tappel feels we need a policy on electing officers that is a little more formal than the way we have been doing it. Please write or call Bernie if you have any ideas on this subject. We will have our usual informal elections at our July meeting until an official policy can be developed. If you can't be at the July meeting, do write Bernie with nominations. All offices are up for grabs. See why we need an election policy.

We also briefly discussed the idea of having our meetings every third month instead of every other month. The newsletter would also come out once every three months. The newsletter would be bigger, as would the quarterly meetings. Please address your feelings on these matters to our president.

# Next Meeting

Our September meeting will be at Bernie Tappel's shop in Henley, Mo., which is just outside of Jefferson City. The details of the September meeting will be in our next newsletter.

The July meeting will be at Doug and Bonnie Hendrickson's Peola Valley Forge in Lesterville, Mo. Set aside July 23rd for the meeting and the 24th for our annual Black River float trip. This meeting will be a hands on workshop with an emphasis on basics. Three forge stations will be going with an experienced blacksmith present at each station to help you with special problems. This is a chance for some one on one work, a chance to work out some of the glitches that may be haunting you. Beginners as well as more advanced smiths are encouraged to attend this meeting. Bring your favorite hammer. Saturday is for beating, Sunday is for floating. Our July meeting has traditionally been for families. Doug and Bonnie have land right on the Black River, just a quarter mile from the forge. Kids and spouses who just can't understand why we would want to stand around in July's heat and humidity and play with fire and hot iron can relax on the banks of the sparkling Black River. Please call or write Doug if you will be camping and floating, so he can make reservations at the campground a half mile from the forge. Camping is \$4.00 per person and canoe rental is \$20.00 per boat.



# Dear ABANA Members,

ABANA 1988 NOMINATION COMMITTEE CHAIRMAN JIM FLEMING POB 1212  
BRECKENRIDGE, CO 80424

## CALL FOR NOMINATIONS

Nominations are being accepted for four (4) positions on the Board of Directors of ABANA for three year terms.

## QUALIFICATIONS FOR NOMINEES

1. Candidates must be members in good standing of ABANA (all dues must be paid in full)
2. Candidates must be nominated by at least ten (10) members in good standing with ABANA. This can be done by petition and/or individual letters sent by midnight, August 1st, 1988 to the Nominations Committee Chairman.
3. Candidates should submit a short statement about their background and why they wish to serve on the ABANA Board, including a small photo which can be published.
4. All nominations and statements by nominees must be postmarked no later than midnight, August 1st, 1988.
5. Outgoing board members, who wish to run for re-election, need not be nominated by ten members; however, all other above rules apply.

## NOMINATION AND ELECTION SCHEDULE

- |                  |   |
|------------------|---|
| June 1-July 31st | Call for Nominations.   |
| August 1         | All relevant materials must be postmarked no later than midnight this date enroute to the Nominations Committee Chairman.   |
| August 15        | Election ballots will be mailed to all ABANA members in good standing.  |
| September 15     | All ballots must be returned by voting members to the Inspectors of Election, postmarked by midnight this date.   |
| September 21st   | All returned ballots must be counted and the election results reported to the president of ABANA by this date. The president will notify the editor of "The Anvil's Ring", all candidates by telephone or letter, and all chapters through the President's Newsletter, of the election results. |
| October 1st      | The president of ABANA will notify all new board members by this date.  |
| November 1st     | Annual Board Meeting after this date.   |

# ABANA Conference

## 1988 ABANA BLACKSMITH CONFERENCE

The Birmingham Conference was held at the Sloss furnace, a national historic landmark, with a gallery space and class rooms provided by the university of Alabama at Birmingham. Seven BAM members joined six hundred ninety-five other blacksmiths from seventeen countries for three days of wonderful demonstrations and questionable food. Sloss is strung out over a large city block and is a maze of buildings, hoppers, conveyors, and pipes. This kind of setting made finding the demonstration sites kind of like an easter egg hunt. After becoming accustomed to the grounds, finding the demonstrations ceased to be a problem. This was a big event, run by the members of the Alabama Forge Council, who volunteered their time and tools. Some confusion was to be expected, but it bothered no one. These guys worked very hard and it showed. As always the demonstrations are the high point of any conference and this one was no different.

Many new and unusual things were demonstrated side by side with time tested techniques. Francis, Judd Nelson, and Bud Oggier, America's Grand Old Smiths, offered solid answers based on years of dealing with iron. Bud, in fact, had a sign up at his forge "Just ask, we'll try it". Bud's open easy going attitude allowed anyone direct access to his expertise. Unlike Bud, Swiss blacksmith, Cris Friedrich, introduced his demonstration by saying "I'll work first, then we can talk". His demonstration was spell binding and when he was finished there was no need to talk. He had made everything crystal clear with his hammer and anvil. Dorothy Stiegler, ABANA's President, worked

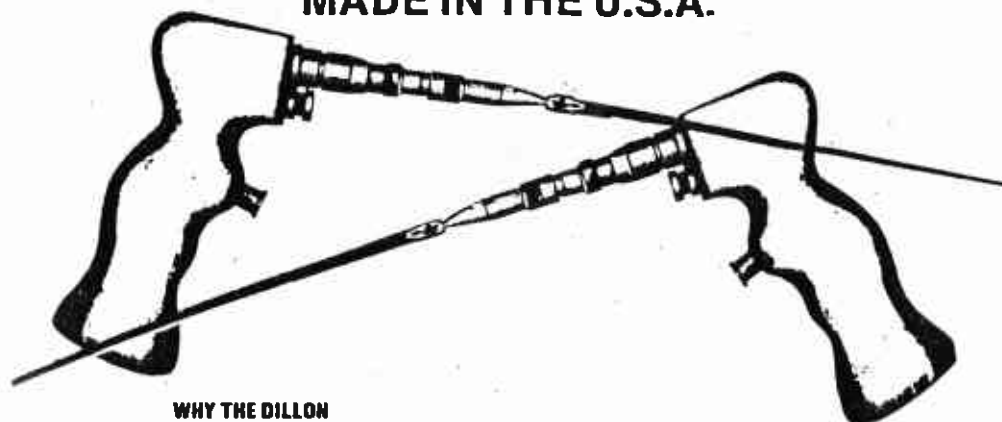
with sheet metal to create delicate lifelike flowers, complete with color and smell. Bill Callaway showed how to forge copper pipe, and most valuable for me, how to tin a copper skillet. I could go on and on, but I'm sure you get the picture.

It will be two more years before the next ABANA conference comes around. Save your pennies. It's well worth it.

## Proposed Logo



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### WHY THE DILLON IS MORE ECONOMICAL

Due to the patented revolutionary method, equal quantities of oxygen and acetylene are used in all welding procedures. The pressures used are maximum 4 PSI acetylene and 4 PSI oxygen. The unit comes complete with cutting attachments, all tip sizes, tip cleaners, guide wheels, heat shield and comprehensive instruction book. The use of guide wheels and heat shield is optional, at the discretion of the operator. No specialized regulators or gauges are required.

### MINIMAL DISTORTION

For fusion welding assembly and the welding of light gauge metal such as body panels, material distortion has been minimized.

### SPECIALIZED RODS RARELY NEEDED

The Dillon can weld various metals such as copper, brass, cast iron, lead, stainless steel, mild steel, casselman bronze, Inconel, and aluminum. Preparation of the metal in most cases is not necessary. Variations in usage includes cast iron to mild steel, copper to cast iron, copper to mild steel, brass to copper, brass to zinc anneal, brass to zinc alum, all the above without the assistance of fluxes. In some instances minimal use of flux may be of assistance.

### ALUMINUM WELDING SIMPLIFIED

Aluminum can be welded using the minimum amount of flux to the standards set by the National Association of Testing Authorities and as stated, by a leading aluminum manufacturer, after samples were given macro examination, "the weld strength is still as good as would be expected with any other type of regular welding including the inert arc".

### CAST IRON WELDING

It is no longer essential to pre-heat cast iron prior to welding. With the correct flame setting, welding this metal is now a simple procedure. Cast iron, manifolds, etc., can now be repaired on site.

### OXY CUTTING

Using 15 PSI oxygen, the cutting operation uses 2 cu. ft./hr. of acetylene and 10 cu. ft./hr. of oxygen total, to cut 1/2" plate. While the conventional units use 12 cu. ft./hr. acetylene and 78 cu. ft./hr. of oxygen to perform the same task. A savings of up to 80% oxygen/acetylene. The Dillon will cut up to 1 inch thick mild steel. The design of the Dillon cutting process is such that unlike the conventional method of oxygen/acetylene cutting the induction of excess heat and excess oxygen is non-existent and therefore the finish of the cut is non-oxidized and a cleaner, faster finish is the result.

### HARD SURFACING

Hard surfacing of mild steel such as scarifier points etc., with cast iron, a 40-50 Rockwell reading can easily be obtained by using the water technique.

### STAINLESS STEEL

Stainless steel can be welded or fusion welded. Fusion welding can be carried out without a filler rod to give a clean strong joint.

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# Safety

by Walt Hull

Dear Professor Safety

Do you always practice in your shop the safety procedures you recommend in your column?

Skeptic

Dear Skep

No. Wanna see my scars?

Dear Professor Safety

What is the single most important thing we can do to avoid accidents in the shop?

Hopeful

Dear Hopeful

I'd like to tell you that the most important thing is to be aware, every time you do something, what its consequences are going to be. This would not only improve your safety, but your work as well. In our part of the

country, however, we have a phenomenon called Monday morning. We also have deadlines, romantic fantasies, telephones, and a wrong side of the bed. What you have to protect yourself against are your own moments of inattention. This means good shop habits, tools in good repair, and a refusal to hurry (its O.K. to work fast, hurrying is trying to work faster than you can). Hurry is a leading cause of things going wrong. Hurry makes you lie to yourself. You say "maybe this will work", and when it doesn't you say "Damn, I knew that was going to happen". You let yourself believe that putting a tool where it belongs will take longer than putting it where it doesn't and then hunting for it and then tripping over it and then putting it away.

A few accidents are really accidents, that is, they are things that happen that you couldn't foresee. Most accidents are really mistakes. If an airplane crashes into your shop it is (from your point of view) an accident. If you take a half step back from the forge onto a small piece of round stock, that's a mistake, and it could be a bad one.

So the answer to your question is, the most important thing you can do to avoid accidents is to make your shop a good place to do blacksmithing.

Prof. S.

Dear Professor Safety

What is the proper way to dress the head of a chisel or other struck tool to keep pieces from flying off when you hit it?

Duck

Dear Duck

I would appreciate hearing from others on this, but here is what I do.

First, when we hammer on the head of a tool, two things happen. The head of the tool is "mushroomed", that is, it is upset somewhat, and material is pushed outward to form a wide sharp edge. Also, the steel of the head is work-hardened and becomes brittle, so that pieces of that thin edge are very likely to break off if hammered further. I try to correct both conditions. First I grind off the edge to produce a head smaller than the shaft of the tool. This slows the mushrooming process, and it gives me a smaller target so that my hammer strikes the tool nearer the center and makes the force go where it will do good.

Next I heat the head of the tool slowly, to a low annealing temperature. This is the part I'm not sure about, especially since most of my tools are of unknown steels. I've been using a dark red, and have had good luck, but I'd like to hear from someone more knowledgeable.

Whether you anneal or not, grind off the mushroom frequently. It's easier to keep'em clean than to clean off a whole big gob.

Prof. S.

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.

## Tips & Techniques

### NOVELTY ITEM RAILROAD SPIKE TOMAHAWK

by Tom Moore

Reprinted from the newsletter of the Mid Atlantic Smiths.

The following simple steps yield a tomahawk from a standard railroad spike. The head of the spike is not altered so that the original material is easily identifiable.

Dimensions given are approximate. The biggest problem is holding the thing while performing the operations.

New or unworn spike, 5/8" square, 6 1/2" long.



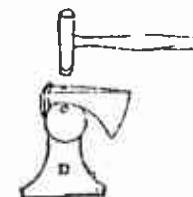
Upset spike on anvil to about 1" square and about 4 3/8" long. keep head cold.



Flair upset end with cross peen. Periodically straighten back, smooth blade.



Slit eye, swell slit with drift. Straighten any deformities.



Grind profile, file smooth and sharpen. Harden - water quench. Temper - blue.

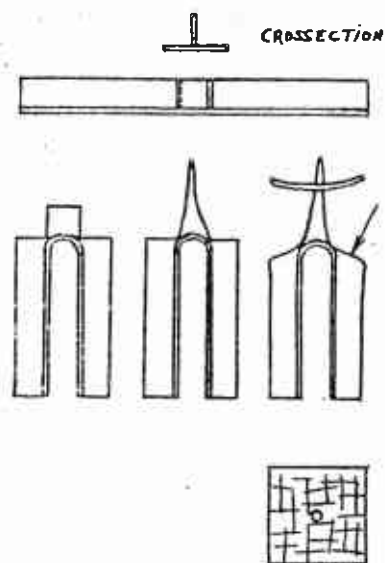




DELAWARE AGRICULTURAL MUSEUM CONFERENCE  
September 12, 1987

Fred Crist formed a modernistic candlestick from 1/4" x 2" x 2 1/2" T-bar. Fred had pre-sawn two cuts 1" apart in the center. After heating, the T-bar was bent back on itself at these two cuts. The remaining section was then forged down a little and driven into the hardy hole to square up the bent sections with each other. Fred continued to draw out the center section to a point about 2 1/2 to 3" long. Next he hammered down on the two shoulders, rounding and upsetting them.

Taking a 1/4" x 3" square plate, Fred used a crosspein to crosshatch the upper surface. Next he center punched and pierced the plate with about a 1/4" hole. After curving/cupping the plate by hammering on a wood block, he drove the plate down 1/3 of the way onto the spike, using a section of pipe. This completed Fred's heavy-duty candlestick holder. Look in the Fall 1987 Anvil's Ring on page 29 for a photo of an early version of Fred's candlestick holder.



Ned Edelen

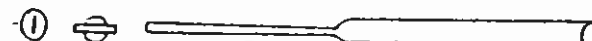
## MAKING A TWIST DRILL

Alabama Forge Council Blacksmith Conference  
Tannehill, Alabama - September 11, 1987

Demonstrator: Paul Armbruster, President, Tullie Smith Guild, Atlanta, Georgia  
Notes by Clay Spencer -- Published in the newsletter of the Alabama Forge Council

Material: 10 inches round steel stock, diameter depends on diameter of drill to be made

1. Flatten the end to be twisted, keeping thickness and width even.



2. Start twist at end with hammer. Hold flattened bit at about 45 degrees to your right to make a right hand twist. Work from cutting end back to the shank.



3. Keep twist and diameter even. Hammer both edges all the way to the shank. You are forming the twist and cutting edge with the hammer at the same time.



4. Continue hammer twisting the whole length to tighten up the twist.



5. After the twist is as tight as you desire, sharpen the point, cut off excess shank and heat treat if you need to.



### TECH TIP

Wilbur Gaedtka, President of the Illinois Valley Blacksmith Association, passes this idea on.

To tighten up a hammer head, soak it in radiator anti-freeze. The wood swells up and doesn't evaporate like water does.

BAM

R.R. 1 BOX 16D

LESTERVILLE, MO 63654

ADDRESS CORRECTION REQUESTED