

May 2009



The Florida

Clinker Breaker

Florida Artist Blacksmith Association - Established May 18, 1985

Report on the Gas-Forge Workshop *Steve Bloom*

The gas forge workshop was held on March 14, 2009 with eight participants (see the mug shot below - Bob Dolven managed to escape before we took the picture). The detailed write-up of what was done and how they were built is available on the FABAs website (look under [Projects]).

The basic intent and design was definitely KISS - a simple cube (9" on a side) made up of 6 K28 refractory bricks (good to 2800 F), wrapped in a light (0.040" thick) shell of stainless with an angle iron base. The forges were equipped with a front work area (including a socket for a third-man rod) and a rear support for the rear closure. The chamber was 4" x 4.5" x 9" and open at both ends (see picture to the right). The burner was a single venturi unit using a 0.040 orifice and connected to standard commercial LP equipment (using a 0 to 30 psi adjustable regulator). The details of the equipment specs and the costs are given in the write-up on the website.

I had pre-fabbed the burners and with the help of Bob Dolven (who came a day early) we ran up a prototype before the workshop. What we learned on that Friday was that the shell was going to be the bottleneck and we were right. Tom Kennedy came in Friday evening and we poured a lot of castable refractory for a couple of Tom's projects before crashing.

We cranked up at 9:00 AM and basically had the shells sheared, folded and assembled before lunch. That's when I



A couple of the forges that were built

discovered that we needed seven and I had laid out six. So much for being ahead of schedule!

After lunch, we broke out the shear and the bending brake and managed to get the seventh forge together in record time. With many thanks to Pete Peterson who brought his own MIG and did yeoman work welding the frames, we got to tuning the forges by mid-afternoon. The units idled at 1 to 2 psi (temperatures probably in the 1800 F range) and based on my experiments with the prototype forge, could bring a 3/8" piece of round stock to forging temperature in 1 to 2 minutes. Without using auxiliary air blast, I was also able to forge weld tool steel without any great difficulty. I'll be curious to get reports on whether the units can hit mild steel welding territory (we just didn't have time to try that).

(continued on page 6)



JimCroit, Leroi Price, Tom Carboni, Pete Peterson, Gary Kemp, Steve Bloom & Tom Kennedy - March 14

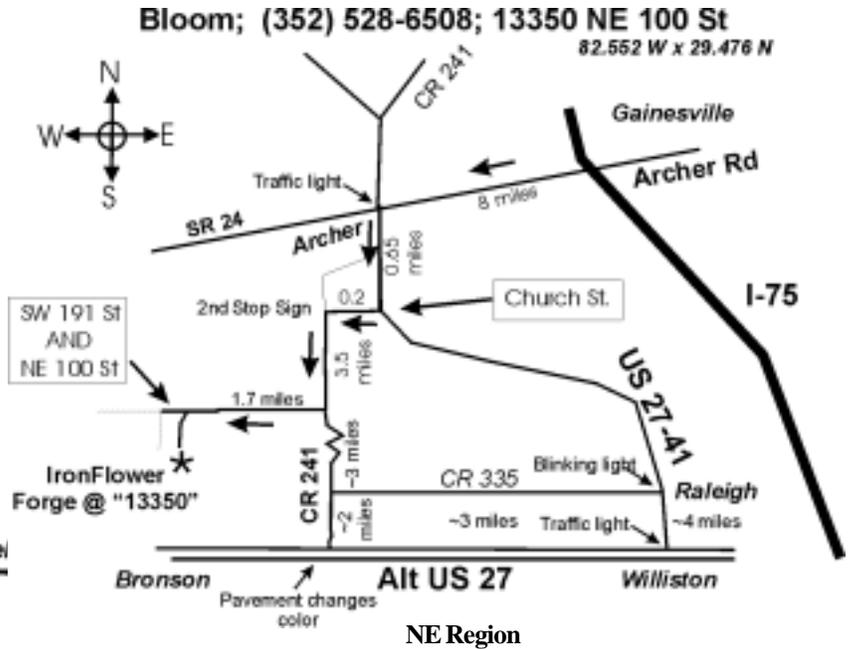
Upcoming Events

The calendar includes events of interest to the blacksmithing community. The regions have no boundaries - everyone is welcome everywhere. Come to more than one if you can. We hold regular meetings in each region on the following Saturdays of each month: NE-1st, NW-2nd, SE-3rd, SW-4th except for quarterly Statewide meetings. The actual dates vary so check the schedule below. Our meetings are informal gatherings around the forge. Prospective members are always welcome. Come for all or any part of a meeting, bring your tools or just watch. Most meetings run from 9AM to 4PM and you'll need to bring lunch if not otherwise noted. If you have any questions about meetings, please contact the Regional Coordinators:

Northeast Region Mitch Widham	386-673-0174	mwidham@cfl.rr.com
Northwest Region Billy Christie	850-421-1386	chriswoodforge@embarqmail.com
Southeast Region Ed Aaron	561-748-9824	edaaron9824@bellsouth.net
Southwest Region Jerry Wolfe	941-355-5615	wolfeforge@hotmail.com

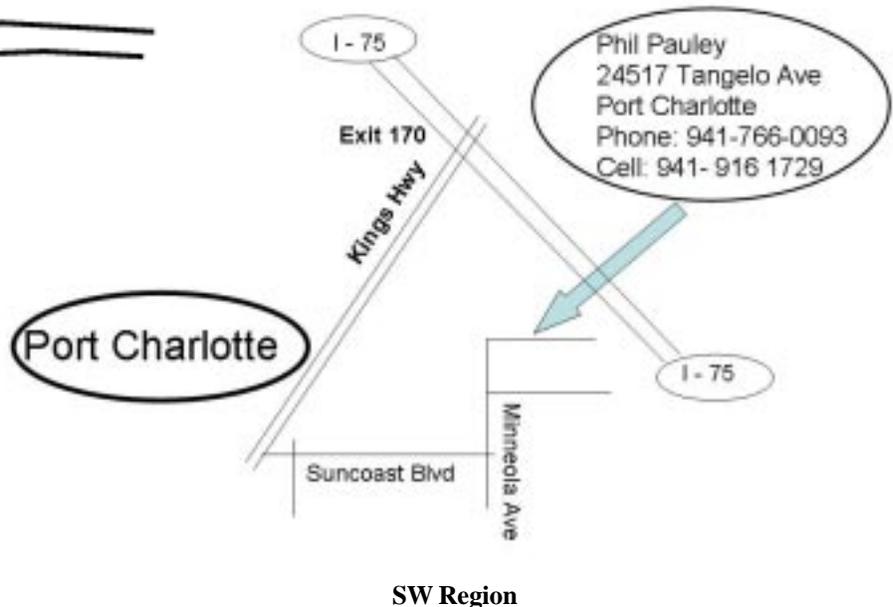
May 2009

- NE 02 Steve & Kimmy Bloom's-near Archer - see Pg.3
- NW 09 Rex & Mary Ellen Anderson's Forge in Monticello, FL with Butch Patterson demonstrating "critters."
- ALL 14-16 Madison Conference
- SE 16 Until further notice-Tanah Keeta
- SW 23 Phil Pauley's Forge.



SE Region

Boy Scout Camp: from I-95 exit go east onto Indiantown Rd, go north (left) onto Island Way (1st traffic light). Stay on it until it ends at Country Club Dr. Go left—it ends at the entrance to Boy Scout Camp.



Current Events

NE - May 2 - Steve Bloom's shop - our demonstrator is John Perry (Tampa). John makes his living doing repousse on motorcycle gas tanks (in stainless steel) and is a museum-quality armorer working in the European traditions. Several of John's pieces are scattered in this issue. Chili and lunch will be provided as per usual. Bring something for the Buck-in-the-Bucket.

SW - May 23 at Phil Pauley's Forge. Demo by Jerry Wolfe - Come be surprised. Also we will have teaching stations - If you want to improve your skills, come and we'll work together. Instructors available. Demonstration starts at 10AM, come for informal hammering starting at 9AM. We will have our normal Iron in the Hat and a pot luck dinner - Bring a dish to share.

Directions: Exit 170 off I-75 South to Suncoast Blvd, Left on Suncoast to Minneola Ave to 24517 Tangelo Ave Port Charlotte.

Future Events

NW - June 13 - Edgar & Jean Chattin's Forge in Wakulla County, FL.-out Wakulla Springs Rd. -Tomahawks/knives
NW - July 11- Rob & Valynda Nichols's Forge at 3007 Old Lloyd Rd. Monticello, FL.

Report from the Northeast

Mitch Widham

.Hello my name is Mitch Widham and I have the dubious honor of being appointed as the new N/E Regional Coordinator. First off I would like to thank Ken Knight for his years of invaluable service and leadership of our outstanding group. The April 4th, meeting at the Pioneer Arts Settlement in Barberville, was attended by 34 members, \$158 was raised in the Buck in the Bucket, with some of the finest rusty junk you every saw changing hands and finding a new life and home in another Smiths shop, at least for a while. There was lots of activities going on with 5 forges smoking up the Hollenback & Sons Smithy, on the brick forge, Jordan Thomas was forging custom iron work for various



Jordan at work



Ronnie Fowler & Lester Hollenbeck

buildings in the settlement, and teaching several young future smiths some basics of the trade. Jordan has been doing yeoman's work at the Settlement, cleaning up the shop, teaching demos to field trips and volunteering lots of hours out there. Please be sure to give him your gratitude the next time you see him.



Lester's "minor" works

His efforts are great for us FABA members as well as the Settlement it's self. Hopefully Jordan will be presenting a demo to our region in the near future. I would like to welcome several new members, HL Nichols and Chris Crews, we also had some first timers that I am confident will be back.

Lester Hollenback, continues to amaze us with his collection of miniature blacksmith tools, this month he brought a tiny horseshoeing anvil that he made (somehow) see photo, and a set of horseshoes that are smaller than a quarter, I think he made them on the tiny anvil. I'd like to request that members continue to make small items to donate to the settlement, that they can sell in the country store, every little bit helps, additionally Bob Mancuso has started a collection jar, please consider dropping in what you can spare. Thanks to all that have helped me with the transition, I will be seeking your help and guidance throughout my term, and will be asking each of you for help with ideas and demonstrations. Remember the May meeting will be at Steve Blooms shop then back to Barberville in June, if you have any horseshoes, please bring them we plan on making various items out of them for the store.

(Pictures are from Mitch and Bob Brown - Editor)

Report from the Northwest

Billy Christie

We had a beautiful spring day for blacksmithing at Clyde & Vi's "Payton Forge" outside of Monticello, Florida. There were 62 people that signed in for this March 14, 2009 meeting. Our feature demonstrator was Mike



Dot Butler & Maggi Pecora

Bettenger, assisted by Ron Childers. The project was how to make a large pair of fireplace tongs out of rebar. They turned out great & Clyde auctioned them off for \$60.



Aaron Peck and Lloyd Wheeler kept the open forges going strong all day. Nice work guys. The "Iron In The Hat" went very well bringing in \$242. Thanks Aaron for drawing & announcing the winning tickets. (5 free tickets for any hand forged item)



Lunch was delicious thanks to Vi and her helpers. There was plenty of great food to go around.

After lunch James Levy, Historic Conservationist with the State of Florida, at the R.A. Gray Building, gave a very interesting talk & brought a table full of artifacts that had been recovered from Florida's oceans, rivers, lakes, and lands. He also explained how they preserve and try to keep all of these artifacts for future generations to enjoy. His display included wrought iron boarding axes, hoes, froes, rifles, & a flint lock pistol that had been on the floor of the ocean so long that it looked like a big barnacle. James also explained how they use electrolyses and a weak solution of lye, as a rust remover & cleaner to help restore large items like anchors, cannons & cannon balls (which can take as long as two years). If you have never been to the Florida Museum of History, you should check it out. Marty & Pat Shimansky, of

Shimansky Specialty Machining, Inc. had a table full of items that they have cut out using their computer controlled Abrasive Waterjet Cutting machine. It can cut almost any material from steel, aluminum, composites, glass, plastic, rubber, marble, titanium, brass & more, up to 8" thick using pressurized water & garnet mixture up to 55,000 psi with no heat distortion. They also have a full service machine shop, very impressive. Thanks everyone involved for another educational & interesting meeting.

P.S. As always, please bring a covered dish to share & your "Iron In The Hat Items."

Bill & Patty (could be both or either - they didn't sign the e-mail) contributed the pictures of the green coal class at the NW meeting - Editor.

Report from the Southeast

Ed Aarons

Back to Faba news.. We need someone to step up and get our group in gear... Lets have more demo's that will get more interest and attendance. Ed

Editor: If you're in the SE and want something to happen - think about stepping up to the plate. Without you, all that happens is nada!

Report from the Southwest

Jerry Wolfe

The March meeting was well attended with 22 present for the initiation of Trez Cole's new forge. Trez gave an excellent demo of making tongs. Scroll tongs made from RR spikes looks easy, anyone can do it. Also another tong designs were demonstrated via the "twisted strip steel" method. Jerry Wolfe demonstrated making a trammel hook and Steve Berglund demonstrated what he had learned from John Wright's demonstration of making a copper vase - excellent job.



Trez Cole and John Harget

Nominations Needed
'Rev' or Jim Labolito

Dear FABA Members,

It is the time for Elections in 5 of our offices. These offices are as follows:

President _____

Vice-President _____

Secretary _____

Northwest Trustee _____

Southwest Trustee _____

If you would like to be a candidate in the upcoming election, please do one of the following:

#1. Send to this address with your name on the line next to the office you wish to be considered as a candidate.

*Jim Labolito, FABA Secretary
314 Fernwood Road
Tallahassee FL 32304*

#2. Email me at fernforge@comcast.net with the office for which you wish to be considered as a candidate.

#3. Call me at 850-567-6464 and notify me of the office you would like to be considered for as a candidate.

To give us adequate of time to create ballots and get them sent out, we ask that you notify us of your intent to run for an office by July 15, 2009. Ballots will be mailed out on August 15, 2009.

Notices, For Sales & Want-Ads

Why digital delivery is good....

If you look at last month's notices, you see that there was a forge and anvil for sale. Gary Kemp jumped on that and closed the deal before the 14th. If you are getting the newsletter in hard copy, you saw the ad on about the 25th. 'Nuff said.

BLACKSMITH COAL

\$35 per 100 lb bag (Pickup only) & details - Pioneer Settlement, contact the Settlement at 386-749-3353 (direct line to Gudrun in bookkeeping) or mail your order with payment to PSCA/ COAL, P.O. Box 6, Barberville, FL 32105. Accepted forms of payment: cash, money orders, checks, MasterCard and Visa.

WANTED: Old forge for display only.
Russ Haines 850-576-5815.

CanIron V11

The Western Canadian Blacksmiths Guild is going to put on CanIron V11. The date is August 7,8 &9th. The location will be at Ness Creek Sask. More information to follow but I will say it is beautiful lake country, perfect for a holiday.

There is room for on site camping @ \$10 per day. Also, there are Hotels, B&B's and cabins in the area.

We will have 4 or 5 top notch demonstrators doing their thing and we will also have demonstrators for knife making. We are going to have a Hands On project on the go as well. More information to follow on that.

The cost to pre register will be \$200.00 from now to July 1st then the price will increase to \$250.00. The phone number and address will be posted later.

On site meals will be available at a cost of \$120 per person for the event, and again please make your intentions known as soon as possible?

Bird of Prey



by John Perry

After the tuning was done, I held forth on heat treating theory (well what else would you expect?) while we waited for Gary's forge to cool (we used his for the tuning process).

A few days ago, Pete wrote: "I wanted to show you the rose I made in the Gas Forge we made at the work shop. Just wanted to Thank You once again for having the Gas Forge work shop the forge works great and gives me more time to do forging. It is an excellent addition to my shop. This is the first rose I have made and I am sure I will be making a lot of other new projects with the gas forge"

Well, shucks....



Trez Cole and John Harget



Fire Strikers

On TheForge, there arose a question about fire strikers

Danr of www.ironetworks.com replied

I make mine out of 1095. If I quench them in water they spark. If I temper them, they don't. I have tried quenching them in oil, but they didn't spark that way either.

I finish forging them and then put them back in the forge until they are bright orange. I pull them out with tongs grabbing the section that is held in the hand and do a quick quench (in and out, really fast) of just the side that the flint strikes. I hold it above the slack tub for about 5 seconds and do it again. I keep doing that until the handle is black. I found that if you put them in the water and quench them all the way black they will develop cracks which will fracture all the way through when you strike them with a flint. Doing the "in and out" of the water of just the face is a "tempering" of a sort (kinda), but my strikers all spark really well when I do them this way

then Dan Tull wrote:

I know we covered this before, but what was the consensus of opinion ,to temper or use as quenched? From hay rake tines to files, seems they would be too brittle and hard to shave sparks in "as quenched". I expect it will be a "resultant" issue , as in, do two and see which showers best.

and David E. Smucke answered with:

Dan, So little hardness is lost with a low temperature temper that it would seem to handle these the same as woodworking tools. If you temper in an oven at 325 to 350 F for 1 hour you only loose a point or two of Rockwell C but gain a lot of toughness. They will still be rather brittle but very functional.

If you color temper a very light straw from retained heat is all

you need, but the oven is safer in not over tempering.

and then added :

If you have trouble with cracking with 1095 it is most likely that you had your steel too hot when you quenched. You need to be at just non-magnetic -- any above this and you are asking for cracks. I also like brine much better than plain water for queching 1095 -- at first they would not seem to make sense but while brine is faster than water it also provides an much more even quench. This is because steam pockets do not form on the surface. Quenching this way will provide a very very hard and very very brittle tool. That is why I always temper. YMMV (Your mileage may vary). If you have a method and it works -- it works. Or as I have heard Dan say "It works doesn't it."

so Daniel Kretchmar asked:

Dave, What are the proportions and ingredients of the brine you use. I would like to try it. :) Always willing to try a different method!

and David E. Smucker replied:

For a brine solution I shoot for 10 percent by weight. So for 5 gallons of water that is about 4 pounds of salt. What I do for my brine quench is use a 5 gallon plastic bucket with a lid. Add water and salt. When not in use I just keep the bucket lid on it. Brine in your shop has a nasty way of increasing tool rusting so I just try to keep it from going all over the place. When using tongs to quench an item in brine I "clean" them off in the slack tub after the quench. I sure it add a little salt to my quench tub -- but that never seems to have been a problem. The dog still likes it better than fresh water. (Dogs love salt, cheap dog foods has extra salt added, so dogs like it.)

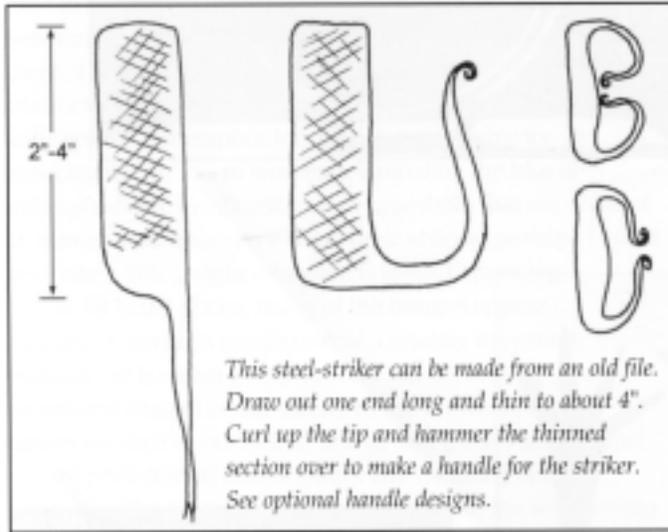
For all you super quench fans out there -- about 80 percent of the super quench speed comes from the salt in the mix. The rest from the "soap".



Williamsburg Paraphernalia

by Jay Close, *The Blacksmith's Guild of the Potomac, Summer 1992*

A tinderbox would usually consist of a small tin box of about 4.5" in diameter that held tinder. Tinder was often charred linen cloth. The tinderbox also contained a steel striker, a piece of flint rock, two covers and a candle holder with candle stub. A small amount of tinder was placed in one cover. The spark caught by the tinder was transferred to the candle. Tinder was quickly



extinguished by the two covers to save as much tinder as possible. The lighted candle stub then supplied the wanted flame.

The teeth of a file will produce a nice spark when struck against a piece of flint. The striker can be made in a range of sizes from 2" to 4" long. Fit it to match the size of your tinderbox or the size of the user's hand.

Harden the striker by heating it in a quiescent fire until a magnet won't stick. Quench the face about 1/4" back, and set it aside to cool. Do not draw a temper. The harder it is, the better it sparks. High carbon steel of about 0.95% carbon becomes nonmagnetic around 1350-1475°F when the steel is a dark to medium red. Quenching the striking face in water at this temperature will harden it. Quenching only 1/4" of the face and allowing it to cool to ambient on its own allows the residual heat in the rest of the striker to draw a partial temper on the face. It will also keep the handle portion in an annealed state. Quenching the entire piece would require tempering the handle to keep it from breaking. ♣

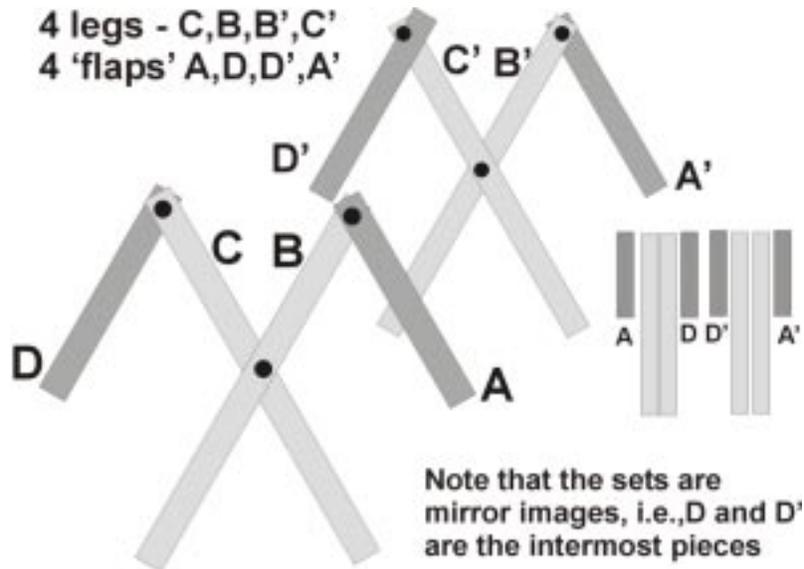
Foldable Flap Table

Steve Bloom

One of the things the teaching trailer needed to compliment the gas forges is something to put them on, i.e., a table. It needed to be strong, light and compact. It just so happened that I had a model of that in my living room (but in wood and quite small).

The first step is always the same -- what crap do I have lying around that I can somehow coerce into being "optimal". What I had was a cheap thin-wall gazebo frame that a friend donated to the rust pile after he got tired of looking at the poor thing sitting in his yard.

The 'eves' consisted of two pieces of 1" x 1/2" x 5' thin-wall rectangular box frame, so there was 40' of this stuff. The exact measurements that will change with the stuff you use, so take what I cite here as just an example, not a blueprint. The top was an old aluminum street sign (yes - it was acquired



legally!) 30" x 24". I cut it into two 24" x 15" pieces.

The height when set up is 36.5" and the leg length (B,C,C' and B') is 46". The top support arms (A,D,A', and D') are

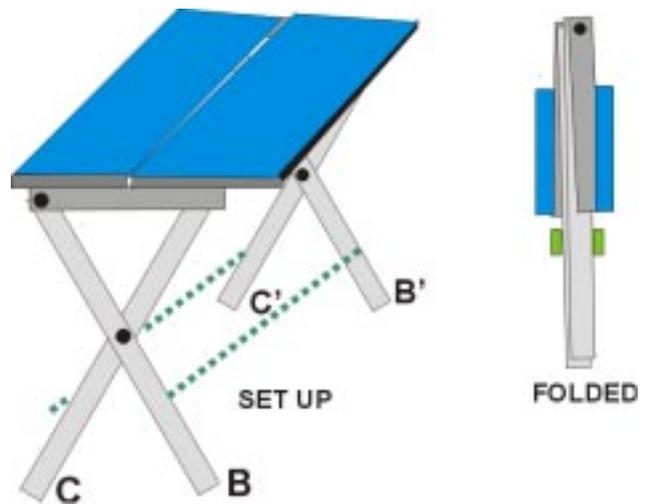
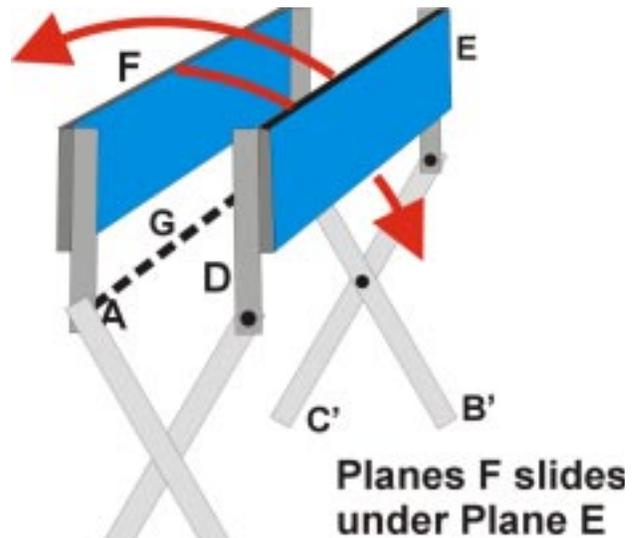
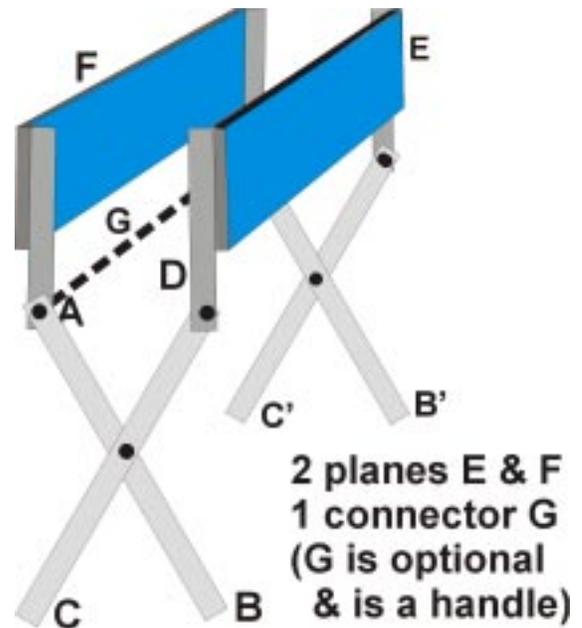
29.75" long. The primary leg pivot point is at 23" (half way) and the tops of the legs and arms are all rounded. To keep from crushing the thin-walled tubes, I sawed a 1" diameter piece of round stock into 8 pieces just thin enough to ram into the tops of the tubes. I then drilled a 3/8" hole through the assembly.

As you can see in the first picture, the leg/arm units are mirror images. A is outermost (closest to you), then B, then C, then D. The order on the other assembly is then (still working back into the paper) D', C', B', and A'. The pivots for C-B, C'-B', A-B and A'-B' (all but the innermost pair) were 3/8" carriage bolts. I over-drilled a bit to allow the square part of the bolt head to slip into the leg and ground the head flat. A fat washer (or two thin ones) were between the various pairs. The bolts were cut so that they just stuck out the far side. A washer was slipped over the stub and welded in place to the bolt. This process basically makes a close-to-flush pivot. A decent big rivet would have done the same.

A 20" piece of material (actually a 3/4" diameter pipe and a couple of 3/8" stubs shoved into and the ends and welded in place) made the pivots for C-D and D'-C'. I haven't bothered to show that in the drawings. The two pieces that form the top are connected to the arms as shown in the figure to the upper right. I pop-riveted them in place. Be REAL careful on which sides of the arms you fasten the top. Note that they are OUTSIDE, i.e., as shown in that figure, the arms are between the top pieces. Because the distance between B and B' is less than that between C and C', it follows that D and D' are much closer together than A and A'. That means that the flap connecting D and D' (=F), can fit under and between the other flap.

When the flaps have been interdigitated (talk about a \$5 word!), there are two possible modes. The top pieces can be butted against one another and the legs cross and spread out (picture to the lower right) or they can be allowed to slip past and the whole assembly folds into a thin unit (about 1" thick). This isn't as bad as a Mobius strip but it approaches it. If this makes zip sense, come to my May meeting (and/or the conference) and check it out. I have also omitted showing lower leg braces (basically two pieces, running between pair of legs (B & B', C & C')). The braces are welded on below the level at which the flaps hang when the table is folded. They are the green dashed lines and the little green blocks.

The unit is 36.5" tall x 30" across and 24" deep. It weighs a bit over 20 lbs and easily supports the two gas forges (which mass over 60 lbs). It is light, string, compact and a bit of a mind trick.



The Florida Artist Blacksmith Association (FABA) is a 501(c)(3) non-profit educational organization whose purposes are to teach, promote, and preserve the art of blacksmithing. Contributions are tax-deductible to the extent provided by law. FABA publishes the Florida Clinker Breaker monthly, and FABA membership includes a subscription. We solicit correspondence and unpaid articles on any subjects related to FABA's purposes. ABANA chapter newsletters may reprint non-copyrighted material if it is credited to the author and this newsletter. You need the publisher's permission to reprint copyrighted material unless otherwise noted.

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FABA MEMBERSHIP APPLICATION

Florida Artist Blacksmith Association, Inc.
 Founding member Southern Blacksmith Association.
 Date _____ New Renewal

Name _____
 Address _____

 City State Zip
 Phone: Home _____ Work: _____
 E-Mail _____
 Spouse's Name: _____

Send application & a membership fee of \$25.00 to

Juan Holbrook, FABA Treasurer
 6418 NW 97 Court
 Gainesville, FL 32653

Make check out to FABA. Your FABA membership begins when we receive your payment and lasts one year. Membership is for a family.

Don't list me in the directory [____]



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