I didn’t really know Francis Whitaker like some of you did. I only spoke with him twice, both times at the Madison conference. I never got the chance to take one of his classes, and never really had the opportunity to use the traditional techniques he loved so dearly.

I have always had to sell my work in order to justify my time in the shop... it’s been a rare thing for me to work for its own sake, or make something just to see if I could pull it off.

I remember asking Francis about that. I asked him, “Mr. Whitaker, I’m a professional smith. Maybe I shouldn’t be, but for better or worse, that’s what I do. My problem is with my clients... they want work that is always cheaper. I want to use traditional techniques, and to do higher quality work, but nobody wants to pay for the additional time that it takes. How do you break into that market?”

I’ll paraphrase his words a bit, but his reply was something like this...

“Young man, the problem isn’t with your clients. It’s with you. No one will remember you for the work that you want to do... they will remember you for what you actually accomplish. How will your clients know the difference if you don’t show them? You’re the blacksmith... you are the expert on ironwork. You must do the highest standard of work possible, then use that work to teach your clients of the possibilities of hand forged iron. Even if you must do this work at a loss, you must do the work first. Through the work you will find the clients who value it.”

There are very few blacksmiths in this country who don’t owe some kind of debt to this remarkable man... and for his words and advice to me, I owe him quite a bit.

Thanks, Francis... BG
The Hammer's Blow, a journal of the Artist-Blacksmith's Association of North America, Inc. (ABANA, a non-profit corporation) is published and mailed to members on a quarterly basis by ABANA, PO Box 816, Farmington, GA 30638, (706) 310-1030. Membership is available to anyone interested in the art of blacksmithing at the regular membership rate of $45 per year. Matters relating only to membership, magazine or journal subscription should be addressed to LeeAnn Mitchell, ABANA office, PO Box 816, Farmington, GA 30638. POSTMASTER: Send address changes to ABANA, PO. Box 816, Farmington, GA 30638. ©2000 Artist-Blacksmith Association of North America. The contents of this publication may not be reproduced either in whole or in part without the permission of the editor or the individual contributors. Contributors retain all copyright privileges; the material is copyrighted solely for their protection. DISCLAIMER NOTICE: The Artist-Blacksmith's Association of North America (ABANA), its staff, directors, officers, editors and members specifically disclaim any responsibility or liability for damages or injuries as a result of any construction, design, use or application of information contained in this newsletter.

NOTICES

ABANA Publication Bids

ABANA is encouraging individuals or printing houses interested in bidding for the positions of Editorship and/or the printing of The Anvil's Ring for the year 2001 to contact the Publications Chair, Dorothy Stiegler at 765 Carmel Valley Rd, Carmel, CA 93923 before April 15th, 2000. This is in conjunction with our normal three year cycle of review of these positions and you will be bidding alongside our current Editor and printing house. Check out our new website for future postings at http://www.abana.org We encourage interested parties to leave resumes on file with the Committee.

New ABANA Contacts

The address to send dues, change your address, request material and back issues, etc is
ABANA
PO Box 816
Farmington, GA 30638
The email address is abana@abana.org
Phone is (706) 310-1030.

To send material to The Hammer's Blow, the new address is
The Hammer's Blow, c/o Brian Gilbert
3404 Hartford Dr
Chattanooga, TN 37415-4730
The phone number is (423) 876-9990
Email is hammerguy@mindspring.com.

For The Anvil's Ring, the address is
The Anvil's Ring, c/o Jim McCarty
5821 Helias Dr
Jefferson City, MO 65101
(573) 395-3304 (after 5:30 pm CST) or
jimmac@socket.net
Check us out on the internet: http://www.abana.org
FROM THE EDITOR

Greetings, everyone... Here it is, my first issue as your new editor. I've redesigned the layout to get more info in the same number of pages, and I hope you find it useful. I wanted to take a bit of space to let you know some of my thinking for the issues that follow.

I consider the Hammer's Blow to be one of the primary benefits of ABANA membership, and I want it to appeal to the widest possible audience. Trouble is, the ABANA membership is a pretty diverse group. There are members with widely varying interests and skill levels... many with skills far greater than mine. I want everyone to find something of interest in these pages.

So here's my plan. In the coming year, I'm going to try to develop and publish articles that fall under the following categories... these subjects should represent (I believe) the interests of the majority of the membership. Hopefully these articles will come from you, the members, but I'll come up with articles as necessary. Here are my ideas so far, in no particular order:

- Beginning Blacksmithing - processes and applications
- Simple Gifts - quick and easy projects
- Intermediate projects

- Toolmaking for the blacksmith
- Historical work - Early American Reproductions
- Architectural Blacksmithing - railings, gates, etc
- Contemporary work - designs and projects
- Blades and knifesmithing
- European ironwork and processes - the Classical Blacksmith
- Professional smithing - blacksmithing business concerns
- Tool Reviews - what works, what doesn't, etc.
- Blacksmith's Bookshelf
- From the Chapter Newsletters

I want to include at least one article from each heading in the next year... possibly more. It will depend on the articles sent to me for publication, and the limits to my own abilities. There are probably some areas of interest that I haven't thought of, so here's your chance. Let me know what you'd like to read about in this publication! If you can't think of other subjects, how about putting the above list in order, from most interesting to least, and send it to me. I'm really interested in your thoughts and opinions about the HB.

So again, enjoy this issue, and maybe even try one of the projects in your own shop. I'd love to know how it works out!

Happy Hammering, BG

BLACKSMITH'S BOOKSHELF

Decorative Wrought Ironwork
Thomas Googerty
77 pages, spiral bound paperback
Reprint available from Centaur Forge
Forging Character, Forging Iron
The Work of Thomas E. Googerty, by Howard Miller
39 pages, paperbound
available from The National Ornamental Metal Museum

I wanted to talk about these two books together, because they are almost a set. I bought Decorative Wrought Ironwork years ago, and I initially didn't think too much of it. It's a ring-bound Xerox reproduction, and the quality of the photographic illustrations is, of course, poor. His designs seemed to have a "dated" look... as if, when the pieces were finished, they should be beaten all over with a ball peen hammer to give them "texture". The text itself is a little tough to read, typical of a book written in 1937.

Then I saw the catalogue from the exhibition put together by the Metal Museum, and I realized that I had badly misjudged Googerty and his work. The pieces from the exhibition were beautiful... wonderfully designed and executed. After learning about the history behind Thomas Googerty's work, I gained a new appreciation for his designs. He was an instructor at a reform school for boys, and his work concentrated on training technical aspects of the craft of blacksmithing. He never had the commercial success or commercial pressures of, say, the Yellin shop. His work was for a completely different purpose.

I went back and dug out my copy of Decorative Wrought Ironwork and took a closer look. On the surface it still doesn't look like that much, but if you look closely, here are the step-by-step processes that he used to produce the beautiful Arts and Crafts style pieces that are illustrated in the exhibition catalogue. My only regret is that I didn't get the chance to see the exhibition in person, but it is planned to be at the Flagstaff Conference, so perhaps we'll all have another opportunity to see the works then.

Although I can't say that these books should be on every blacksmith's bookshelf, I can recommend them both, especially if you're into the Arts and Crafts style. The price for the first is a little high, and the second a little low, so if you buy them both I suppose they're a pretty good deal. You'll get more from them if you read them together.
A Japanese Cutler’s Hammer

This project was demonstrated by James Viste at the Appalachian Area Chapter’s Christmas meeting in December, 1999. Although I’ve never used one, James said that these are really neat hammers...the offset handle tends to help it steer itself as you use it. It’s a fairly simple process to make one. James used a piece of 4140 axle steel from a car, though he says that a truck axle from a semi would work best.

Start with a piece of steel that is long enough to forge without tongs. First, work the axle to a square bar and give it a slight taper... perhaps 1/4" or so... over the last three inches of the bar. Cut off the bar at about four inches with a hack (a chisel for use under the power hammer). James used a power hammer for all these operations, but they could be done by hand.

Mark with a center punch on one side about 1" back. Draw a band around the head with a soapstone to locate the center-punch on the other side.

TIP: sharp pointed centerpunches are good for drilling, but slightly rounded centerpunches are better for marking hot steel. You can hold the punch at an angle and roll it around to find your mark.

Once you have located the center, you can begin to punch the eye. Remember, the most important hit is the first one... try to keep the punch as straight as possible. Drive in an equal amount on each side. When you’re almost through, you’ll get a little hump of metal in the bottom of your hole. Let it cool off a bit, then center the punch on the top of the hump for the final hit... you’ll get a cleaner shearing action, and you should have an equal mount of burr on each side of the hole.

James expanded the hole a bit with the punch, then switched to a hammer eye drift. His are made from mild steel. Once the drift expands the eye to the size for your handle, the last forging step is to refine the eye a bit to give it a slight hourglass shape. With the drift still in place, lay the hammer head on its side. Hit the top and bottom edges of the hammer head where the drift passes through it. This compresses the sides of the eye, leaving the hourglass shape you need.

To finish, dress the hammer on a belt grinder. Give the face (the tapered end) a moderate crown, wire brush and set a handle.

“Everybody has their own way of doing things, but if you do it right, it will work. I can’t emphasize that enough.”

James Viste

When you drive out the slug, aim the punch at the top of the bulge

If you’re off, centering the punch on top of the bulge will help straighten the hole a bit.
Hammer Eye Punches and Drifts

If you don't already have a set of punches and drifts for making hammer eyes, go ahead and make them. They're not that hard to make, and you can use them to make pretty much any type of handled tool you want.

There are several different methods for punching eyes, but I believe that the first thing you should do is locate a good supply of handles and buy as many as you think you'll need. Then size the tools to fit the handles. You'll get a better fit and spend less time shaping the handles to fit your hammers, fullers, sets, etc.

Start with a punch. The traditional way to do these is to draw down a piece of tool steel into an oval cross section that approximates the shape of your handles. You can use any flavor of tool steel that you like... Frank Turley makes his out of S-7, an air-hardening steel. It gives an extremely strong tool, but forging S-7 can be a little tricky... you need to pay close attention to temperature ranges and follow the manufacturer's recommendations closely. An oil or water hardening steel like O2 or W1 would be a good choice for this project.

If you're new to tool steels, you may want to try making the punch out of coil spring... scrap steel is certainly cheap enough. But making tools from scrap has its own set of problems -- like the tiny cracks that develop in coil springs after being flexed for twenty years. These usually don't show up until after you've tried to forge a tool, but when they do, throw the whole spring away. Even if you do find a piece without any cracks, it'll be more likely to break under use... and you don't want your tools disintegrating on you, especially when there are visitors in the shop (and they are wearing their safety glasses, right?).

So for a tool that you plan on using often, it's best to start with new steel. Try a piece of W1-- that way when you're using your punch in hot steel, you can dip it in the slack tub without over-hardening it. W1 should be forged at around 1950°, which is an orange heat. Start with round stock, then flatten, draw to a square taper, then forge down the corners to bring back the oval shape.

Once the forging is complete, normalize the tool by heating it to a light cherry color... about 1600°... and set it aside to air cool. The next step is to anneal the tool. For W1, this means to bring it up to a cherry heat... about 1400°... and place in a can of vermiculite or agricultural lime. Once it's cool enough to hold in your hand, you can do any necessary finish grinding. Smooth the surfaces of the tool -- a belt grinder is nice for this. Next, harden and temper.

To harden, heat to a light cherry color... about 1500°. Quench in a brine solution, and temper. The easiest way to do this is to quench about an inch until the steel goes black, then quickly remove and rub the length of the tool on a brick or old file. Then watch as the colors run down the tool. Quench again when the end turns purple. The last step may not be necessary, since the first time the tool used on hot steel it will reheat & lose its temper anyway... but it's good practice. Be sure the struck end of the tool is not hardened.

A drift is made in the same manner, except that a drift is used to stretch an already-punched hole to a specific shape or size. You can make a drift out of mild steel, but remember to put a taper on both ends of the tool. That way, you can drive the drift all the way through the hole. If you make your drifts out of tool steel, they'll last a long time.

A variation on this technique was written about last issue... a combination drift and punch can be made to be used with drilled holes. This makes it easier to keep the eye centered while you drive the punch.
(mostly) Dorothy Stiegler's Jonquil

The original idea for this flower in iron came from a newsletter article written by Bruce Gilles of the Appalachian Area Chapter. Bruce took a class by Dorothy Stiegler and wrote about making her iron Jonquils. I thought I'd try to make one myself, but found a few details missing. Not being familiar with this particular flower, I dug up a photograph in one of my dictionaries. I made a few changes in the way I made this flower, but the design is (mostly) Dorothy Stiegler's.

Start with the stem. File or grind a square tenon on the end of a piece of 1/4" round that is at least 18" long. Texture the surface by hammering.

![Image of a square tenon](image)

Next, cut the pieces from the sheet. A Beverly shear would be great for this, but I used a straight bar shear to rough out the shapes, then ground them to their final profile. They could be chiseled or sawn out as well.

Now texture the sheet metal parts with a cross peen hammer. I used a fairly sharp hammer to define the long leaf lines, then switched to a more blunt peen to work the petals and the center piece.

![Image of textured pieces](image)

TIP: If you're going to make more than one of these, take the time to make templates. These are just master patterns made of metal instead of paper. If you make templates out of galvanized sheet metal, they won't rust and you'll be less likely to forge up your templates by mistake. Scrap from a heat and air shop would work nicely. You can also save time my transferring your patterns with spray paint. Just arrange the templates on the sheet and spray with a contrasting color, then cut away the painted parts... an idea from Ray Spiller.

![Image of patterns laid out for cutting](image)

Now cut the elements of the flower out of 18 gauge sheet metal. I used a rusty piece that I sanded a bit, and then used a waterproof magic marker to transfer the pattern outlines to the sheet metal.

The parts textured

After the parts were all textured, I departed from the instructions somewhat and chiseled a shallow groove down the center of each petal. I did this over a stump to sink a groove into the petals, shaping them somewhat like the photograph I had seen in my dictionary. For the circular center piece, after it was textured I sunk the center over a swage block. I made the mistake of drilling the center hole prior to this step, and as a result it stretched the hole so that the center piece wouldn't lock onto the square tenon. Just remember to do all your shaping and texturing first, then drill your holes.

Now weld the leaves onto the stem. The article I had didn't say how this is best done, but I imagine that brazing would be the method of choice. Arc welding the thin leaves without burning would be tricky, and forge welding the thin flat leaves to the round stock would be difficult as well. I forge welded mine, and I had mixed results. The first leaf welded pretty well, but the second never did take, even after three tries. I should have practiced on a piece of scrap first.

When heating for the weld, I held both pieces together with tongs, or a pair of vise grips would work well too. Keep the thicker round stock down in the fire, and the thin leaves on
the top (I made the second mistake of fluxing with EZ Weld, and this left gunk all over the stem that can’t be reached with a wire brush. Needless to say, by now the first one was pretty much botched.) Start by welding the closest leaf to the tenon. It’s difficult to forge weld such small pieces. I scarfed and curved the base of the leaf to match the stem as closely as possible. Lay the two pieces in position in the fire.

There are two ways that I use to check for welding temperature. One way is to place the two pieces to be welded in the fire so that they’re touching at the weld area. When you move one part and the other moves as well, they’re sticking and ready to weld. The trouble is you have to grab both pieces with tongs and hammer, a feat that takes three hands.

The second method is to watch the pieces as they heat. As soon as they disappear in the fire… that is, when the iron glows with the same radiance as the background… it’s time to weld. This method is a little harder on your eyes, but if you’re working alone as I was, you may not have any choice. Lightly tap the pieces when welding, and work quickly… the anvil will suck the heat right out of your work. Repeat the process with the other leaves, welding each one a bit further down the stem.

For the final assembly you’ll need a torch. Clamp the stem firmly in a vise, and heat the tip of the square tenon. Peen it over to a rivet shape. Once this is done, mark it all over with a centerpunch. Wire brush the flower all over, and coat it well with your favorite finish.

Once the leaves are welded onto the stem, gently bend them to shape with a pair of scrolling tongs.

Now is the time to assemble the blossom. Here’s where you’ll appreciate the square tenon bit. The drilled holes in the petals should be bit smaller than the square tenon. Arrange the petals as shown, then drive them onto the tenon. Being square, it locks them tightly into place and prevents the petals from becoming misaligned.
Jonquil Patterns

I spoke with Dorothy Stiegler about these flower patterns, and she told me that they are slightly different. She uses a single cutout with six lobes rather than two cutouts with three each. I believe that's Bruce Gilles' design. But she told me that there's really not much difference, and these should work fine.

Although these patterns are full size, feel free to experiment a little and develop something new!
An Easy Guillotine Tool

Guillotine tools are great things to have in the shop, especially for the smith who works alone. For those of you who've never seen one, a guillotine tool is simply a frame that holds a bar of tooling that slides up and down. Jerry Hoffman's Smithing Magician is a good example. (See Volume 1 Issue 9 of the Blacksmith's Journal for other ideas.) The frame can be any design that you want, but it needs to be fairly strong. The tools that are held in the frame need to be as snug as possible, yet still slide freely.

I've made several of these tools, each with varying degrees of usefulness. One was a complete failure... the frame wasn't strong enough. Another that I built works great, but the design didn't leave enough clearance for wide stock on edge.

I developed the following design after seeing a similar one made by ABANA president Lou Muller. His was by far the better tool... but Lou has extensive experience in the machine shop and has access to equipment that I wouldn't know how to turn on, let alone use. I needed something quicker to build yet still work fairly well. This tool seemed to fit the bill.

Most of these dimensions can be adjusted to suit your particular needs, although I'd caution you about making the tool much bigger. Most folks who make these overbuild the tool. That's not such a bad thing when making the frame, but if the dies are too big they'll resist your hammer blows due to the mass of the die. If you're working one inch thick stock with a sledge, by all means, scale it up a bit, but for most work it should be built the size shown or smaller.

The most important thing to remember is to start with the die and build the tool around it. Tool steel is not necessary for these dies, since most of the work will be done hot. They're certainly not necessary for fullering dies at any rate. Use tool steel for the cutting dies if you must. You could even arc weld spring steel faces onto mild steel bar stock and be nice to your hammers.

I've used hot rolled bar stock for the dies before, but cold rolled would be better. The hot rolled dies tended to slop around in the finished holder, perhaps by as much as a sixteenth of an inch, which was more slop than I'd prefer. They were built tightly, too... I had to really wail on it to drive out the bar as I was building it. The tools I used were a torch to cut out the C-shaped frame (a plasma cutter would be better) and a cheap Harbor Freight drill press vise to clamp it together during assembly. Don't use a good one, you'll get weld splatter all over it. You could modify this design with shims, bolt-on adjustable guides, etc., but I wanted something that I could build quickly and get on with my work.
Making the Guillotine Tool

The first thing to do when making the guillotine tool is to cut a seven inch length of whatever size bar stock you'll make your tools from. 1/2"x1 1/2" mild cold rolled is a good place to start, but if in doubt, choose a smaller size rather than larger. Most people tend to make their tooling larger and stronger than necessary... you'll find that smaller tools can be more effective and useful. Grind a mild crown into the ends, since you'll have to beat it with a hammer to get it out of the tool.

Cut out the two side plates. If you use an acetylene torch, you'll have a lot of cleanup grinding to do. There are four pieces of 1/4"x 1 1/2" bar stock behind and in front of the dies that are welded to the side plates. These provide a surface to hold the dies. Cut these as well.

To assemble, start with the die stock. Wrap two layers of newspaper around the die stock and secure it with scotch tape or glue. This will give you the clearance you'll need for the dies to slide in and out of the holder. Take the wrapped die stock and lay it into the drill vise. Place the side plates on either side, and lay two of the back die supports in position. Use a second piece of die stock as a spacer to hold the side plates parallel... as the first weld cools, the side plates pull inward with considerable force. Tighten the drill press vise, but don't weld it yet. Clamp a C-clamp on the back of the die support... this will keep it from lifting as the weld zone shrinks and cools. Double check that everything is square and tight before you begin welding. Tack weld the four corners first, then weld the plates in place. Weld the upper one first, then weld the lower. It's a tricky weld, but try to connect the two pieces well. Be careful as you do this... the newspaper wrapping the die may catch fire. This will help when you go to get the die out, but make sure the newspaper is the only thing you burn up!

Once the back die supports are welded into place, remove the tool from the drill press vise. Position the front die supports and hold them into place with the C-clamp. Weld these the same way... tack weld all four corners, then weld the rest.

At this point your die stock will be enclosed on all four sides, and hopefully will be held tightly by the plates you've welded in. The weld zones will shrink and warp a bit as they cool. To minimize the warping, use a steel boatbuilders' trick called skip welding... that is, weld no more than one inch of bead at a time, then skip to another part of the tool. Finish the weld after the previous one has cooled completely. This keeps the weld heat from building up enough to warp the part.
Now you need to drive the die out of the tool. The newspaper helps a little bit, but you'll have to take a short piece of 3/8" thick bar and hammer the die out over a vise opened a bit over 1/2". If it's really tight and you can't get it out, try heating the tool. This will expand the metal just a touch, plus it'll burn out some of the newspaper and should give you enough slack to remove the die.

Once the base plate is welded on, all that remains is a mounting piece on the bottom, either an appropriately-sized piece of square stock to fit your hardy hole, or a piece of bar stock for use in the vise. I went with the hardy stem... most of our vises are too high for this tool. You could use a piece of bar steel that fits diagonally across the hardy hole to work both as an anvil tool or a vise mounting, but I've never tried this.

When you fit the die, you're looking for a snug, sliding fit, but you don't want the die to stick. If they do, the tool will be difficult to use, although a slight sticking would probably be OK. The dies should break in as the tool is used and slide a little easier.

Once you get the dies fitted the way you like, wire brush what you've done so far. (Sandblasting would be better.) Drill a hole through the base where the bottom die will be... this way if a die gets stuck you'll have a way to push it out. Weld the tool onto the base plate. Again, it helps to clamp the tool down to keep it from shifting. Tack weld all four corners first, then chain weld the side plates onto the base plate, and the front plates. I put the die bar into place before welding, just to be sure the holder stays in alignment.

Once the die is out of the tool, clean off any bits of newspaper and test the die for fit in the tool. You'll probably need to sand, file, or possibly grind off any burrs or spots that bind. When I made dies out of hot rolled, I had a lot of mill scale that was causing binding and had to grind the dies. After I was done, the fit wasn't quite as good as I'd prefer... that's why I suggest using cold rolled for the dies, and probably the front and back die support plates as well. (I used cold-rolled for this example, and the fit was much better.)
Dies for the Guillotine Tool

There is practically no limit to the number of dies you can make for the guillotine tool. It's basically a matter of modifying the end of a piece of bar stock to suit your purpose. You are limited in design of the top die to the width and thickness of the die, in this case 1/2" by 1-1/2". Since the bottom die is stationary, you can weld on any size of rod, plate, holders, etc. For single pattern stamping of, say, a small diamond or heart shape, it may be better to build a holder for smaller dies, about 1/2"x1".

Since these dies are only used on hot metal, mild steel will suffice, even for cutting tools and butchers. I've used one for years with minimal wear, but that's only occasional use. I bought some case hardening compound to try on these, but it's too soon to tell if it makes a significant difference. If you plan on using these tools daily, it might pay to make dies out of your favorite flavor of tool steel. I've even arc welded tool steel faces onto mild steel dies with good results.

Fullering dies are a natural for these types of tools, since the edges are always aligned and parallel.

Butcher tools work well and are easily made from one shallow angled cut with a chop saw.

I haven't tried cutoff tools yet, but I hear they work as well, especially straight edged hot cuts. These would be best made from tool steel, and you'll need a guillotine tool with a minimal amount of slop in the dies.

Grooving dies have a lot of potential with a guillotine tool. They are designed to work along the length of a bar. They're neat because they can work two sides of the bar at once.

Other uses for this tool are decorative pattern stamping, tenon forming, swaging, etc. Though I've never tried it, a guillotine tool should work under a treadle hammer or hydraulic press. If you use a press, though, you may need to make some arrangement to keep the dies from overheating.
Grind a 90° edge on top, then mark bottom die. Cut off with a hacksaw. Get the bottom die hot, drop into tool and spread. Use to set V-jaw tools, groove leaves, etc.

Alternate bottom die for grooving stock before twisting.

First, drill a hole; then make two diagonal cuts. Drill into die stock, then use tool steel inserts for punches, chisels, etc.

The resulting die set can be used for collars or grooving stock before twisting.

Cutoff tool
Top swage
Punch
Tenon tool
Splitting chisel
Marketing for Consignment

Selling ironwork through consignment art galleries can be a good way to increase exposure and income, but there can be drawbacks. Here are some tips and suggestions that can help.

When I first started my career as a professional smith, I had to find a way to show people what I could do. I decided to market my work through consignment galleries, and although I've had my share of headaches, it's paid off in the long run.

Consignment galleries are generally more interested in trying new works, and after a while, it can generate enough exposure and referrals so that you don't have to depend on gallery sales for all of your income.

As with anything, though, there's a down side. You have to design pieces that will appeal to the galleries’ customers, and develop ways to make them quickly so your prices are competitive. You need to have high quality photographs of your pieces, and you need to be able to produce enough stock so that the gallery will have a good selection of your work. You will have to pay for shipping to the gallery... that cost is customarily borne by the artist. You have to keep track of which gallery has what, and you have to be able to wait... sometimes a long time... to get paid for all this work.

How much will you get paid? For years, the customary commission rate for consignment works has been 60/40, with the artist receiving 60% of the sale price and the gallery keeping 40%. The gallery is always responsible for collecting and reporting sales tax, so you can avoid that particular headache. Lately, though, there have been galleries that want 45% or even 50% for consignment works. A 50% commission is the normal rate for wholesale, sometimes called keystoning. Whether or not these galleries deserve this much is a debate that I don't want to get into here, but I believe that the reason this trend is happening is that there are more sellers than buyers... in other words, there are enough people who want to be artists so badly that they'll accept whatever commission is offered them.

I've learned not to work with any gallery that wants more than 40% for selling my work. As an experiment, I took on a gallery that wanted 45% once, but after a time, I terminated the relationship (as allowed for in my contract... we'll talk about that later). I didn't sell any more work there than anywhere else, and whenever I did sell, it left me resentful.

Basically, I was operating from a position of weakness. I felt I needed another gallery so badly that I deserved less for my work. This was a mistake on my part, and it's a common one with new artists. Hand forged iron is different from the usual gallery stock... it's much more time-intensive to produce, it takes a heavy investment in equipment and education, and it has a broad customer appeal. It sells well, especially when offered at price points that match the galleries' average customer. I've had more success in galleries with higher price points (fine art/fine craft) vs. those with lower price points (malls, country crafts).

Get your ducks in a row

You will need to have your promotional materials ready before you contact gallery owners. Develop a full product line of hand forged materials, preferably at different prices. My line goes from simple hooks at $6 to small end tables that go for $190.

Anything above that is a custom order. Most of my stuff is in the $60-$120 range. Have good quality photographs ready, as well as a price list. I have a price list that gives retail, consignment, and wholesale (100%, 60%, 50%) prices figured out, as well as a retail only price list. An artist's resume is a good idea... it should include education, professional awards, commissions, collections, reviews/exhibitions/demonstrations, background, artist's statement, press coverage, artistic influences, etc. Have business cards printed, and if you can afford it, a letterhead will help present a professional image.

Where should you propose your work?

You'll need to do some market research. The Crafts Report is a good place to start searching for galleries, under the 'crafts wanted' section, but these galleries are sometimes bombarded with submissions after they advertise. Visit all the galleries in your area. Do a little shopping, and ask yourself if your work would look good there. If it's a slow day, you may want to ask the staff if they'd be interested in seeing your work... but don't do this if they are busy with sales. Some gallery managers think that unsolicited drop-ins are extremely rude. Be prepared to mail them a promotional packet. They may prefer that you come back with samples, so be prepared for that as well... make sure you have a line of samples ready to show. Some galleries have a regular schedule for reviewing work. Find out their requirements. Note: there should never be any kind of a "fee" for reviewing your work, except perhaps a co-op gallery where the exhibitors run the gallery and share the expenses. (There usually is a jury fee for exhibitions, however.)

How should you price your work?

When you visit a gallery, check out the competition. Hopefully, your work should stand out. Shirley Hull, Gallery Manager and Artist in Oberlin, Ohio, writes "A customer always has a price in mind of what they're willing to pay for a particular piece. Your job is to make your best guess of what that price is. As long as you're within $20, most likely the customer will buy it. Figure out what you need to get from each piece and add 40%. Then ask someone who will give you a straight answer how much they would pay for a piece. If you're within $20, go for it." I add 50% when I figure pricing... this helps me include packing and shipping, accounting, etc. Don't ask your family or friends to
help you determine pricing… they don’t want to hurt your feelings. Ask another blacksmith or artist whose work you admire about their success in selling similar work. Looking at other blacksmiths’ price lists can give you a good idea of the “going rate” for some items, but always take this kind of information with a grain of salt. Their markets will always be different from yours, and with experience comes a certain amount of “brand associated value”… in other words, you should not expect to get the same amount for a spatula as Peter Ross does.

**The consignment agreement**

When you find a gallery that is interested in selling your work, at some point you’ll need a consignment agreement. It is the height of lunacy to attempt to do business without one. Notice that this is an agreement, not a contract. I’m not a lawyer (obviously), but I believe there are legal differences in the two. A consignment agreement simply spells out, in writing, the obligations of both parties. It lets everybody know what to expect from everybody else. The consignment agreement that I use is about two pages long and is in plain English… no legalese or “parties of the second part.” It’s easy to understand, and says things like “The artist will pay for shipping to the gallery, and the gallery agrees to pay for shipping of any returned items.” It also says that all of my stock will remain my property until sold by the gallery, and can be removed at any time. It outlines the gallery’s responsibility for stolen merchandise, and defines the gallery’s commission for custom orders through the gallery.

Most galleries have their own consignment agreement, but these almost always had details left out. I have used my version of the consignment agreement with all of the galleries that I currently work with. All of these galleries have had no problem using my agreement, because I’ve taken great care to be fair to both parties. I always tell gallery owners to “take a look, see what you think, and if there’s something you don’t like, we’ll work together to make it agreeable to you.” This approach hasn’t failed yet.

Shirley Hull suggests, “If you are asked to sign a consignment agreement that doesn’t seem fair to you, suggest that you use yours and see if the gallery will sign it. Chances are that if they won’t sign yours, they wouldn’t sign theirs if they were you. The critical issues are: When do you get paid? What happens if you don’t get paid within the specified time? Will the work be insured upon delivery? Who pays the shipping if the work is returned?”

One of the points you should include is that the gallery agrees to display the work for sale while it is in their possession. I had a gallery in New York that ordered several pieces, then they never put the work on the display floor. I can’t remember the reason they gave, but I believe it was pretty lame.

A good source for writing a consignment agreement is a book called “Business Forms and Contracts (in Plain English) for Craftspeople” by Leonard DuBoff. ($14.95). We took several ideas from their consignment agreement and modified them for our own use.

**Getting your work ready**

Some galleries like to use their own hang tags, but most appreciate it if you provide hang tags and care cards for your work. I have hang tags, and a small card that has my artist’s statement on one side, and caring for ironwork on the other. I printed them up on my computer, xeroxed them on cardstock, and cut them out by hand. I think they cost me five bucks total. Don’t include your address and phone number on the hang tags, though. Custom orders should be taken through the gallery, and really, they deserve to be included in the deal. Most galleries work hard to promote their artists… those that don’t soon go out of business. They pay rent, go through a lot of hassles, advertise, and deal with the public. They handle a lot of grief for you, so don’t short them for a commission.

Sometimes a customer will see something in a gallery and then dig up my phone number (somehow) and expect me to give them “discount pricing.” I always quote prices from my retail price list… the same one the galleries use. If a customer starts complaining about my price, I try to terminate the discussion as quickly as possible. Most times there is no price that will make these people happy, and you’ll spend a lot of time and energy talking to someone and not get the sale. If you do manage to convince a reluctant buyer that your prices are fair and they actually place an order, they will most likely find some minor point to complain about and try to get a lower price all over again. To quote Francis Whitaker, “these are not your customers.” This sort of person drains you of your creativity and self-esteem, and should be avoided at all costs.

By consignment selling, you insulate yourself from these people. Of course, you insulate yourself from honest admirers of your artwork as well, but we can’t have our scrap pile and make stuff, too.

**Ask for feedback**

Finally, if you don’t get into a particular gallery, try to find out why. This can be a hard thing to do, and I’ve had a difficult time doing it myself. You should wait at least a week to get yourself in the right frame of mind. Sometimes a gallery would have a good reason for rejecting me, sometimes not. Experience will help you here. Listen to what they say and evaluate it. If what they say makes sense (and especially if you’ve heard the same comment from two different galleries), consider changing things a bit, but remember… it’s your work. Don’t change too much to suit the market. Try to find the market that fits your work. No matter what you do, stick with it as long as it’s fun. If you can stay with it long enough, you’ll reach a point where the work comes to you.
Rattail Hinges and Tooling

Rattail or snipe hinges look great on antique reproductions. They’re easy to make, and they’re a good introduction to forge welding.

My good friend Marsha Nelson taught me how to make rattail hinges years ago. Since then I’ve used variations on the same basic technique to copy all sorts of early American cabinet hinges… butterfly hinges, H and HL hinges, and small strap hinges as well.

The starting point for all these hinges is the eye. These eyes come in two basic types… welded and non welded. Non welded hinges work fine for most light-duty uses or for very small hinges, but most of the ones that I’ve made have welded eyes. Here’s how I do it.

You’ll need a simple tool to help bend the eyes… a hinge eye jig, for lack of a better term. Find a piece of rod that you plan on using for the pin and cut an 8” length. If you want, you can get two sizes on the same tool… I’ve got 3/16” and 1/4” on mine. Find a short piece of 1/4” x 2” flat bar… 6” long should be plenty. Bend the pin material around the flat bar so that it’s held along one of the edges of the bar… kind of like a giant staple or clip. Align the top of the rod with the top of the bar, and get the whole thing hot in the forge. Clamp it in a vise, and with a small rod, arc weld a solid bead on top. If you don’t preheat the piece, the welding heat will warp the small clip. Grind the arc weld smooth after it cools.

Now cut some strips of sheet metal for the hinge. The exact size isn’t important… 16 ga. sheet around 1-1/4” wide, 24” long is a good starting point. Make sure it’s cleaned of rust and scale on one side… we’ll be forge welding it later. Clamp it in the vise and make a sharp 90° bend about 2-1/2” to 3” from the end. (1)

Now clamp the hinge tool on top of the bent strip, bend the sheet metal strip back onto the hinge tool and tap it down tightly with a hammer. (2)

To close the eye, take a short piece of pin stock and lay this in the hinge stock. Continue bending until it’s almost (but not quite) closed. (3) The cleaned side of the metal should be on the inside.

Now you’re ready to weld. Have a good clean fire, flux with borax (EZ Weld can leave a lot of crud in the eye) and weld quickly… the anvil sucks the heat right out of the work. Don’t use a lot of air, either… the thin sheet metal burns easily. I like to set up a bunch of these and weld them all at once, because I usually burn at least one.

As you weld, remember to hang the eye over the edge and hammer on the backside of the hinge. Don’t try to weld too closely to the eye, or you’ll reduce its diameter. You may need to drift the eye after welding.
There's only one other part to make, and that's a small cotter to go around the pin at the base of the hinge. Marsha taught me to make these by hammering a small piece of wire flat and wrapping it around the pin. Optionally you could use an actual cotter pin since they're good and soft, but I'd open it up and hammer it first to get rid of the "machine-made" look.

When you mount these hinges, you must drill a hole 45° into your cabinet at the door frame edge for the cotter to go into. This supports the pin and holds it straight... otherwise it would pivot around the leaf mounting. They look great with handmade nails—screws were rarely used for such utilitarian purposes.

Another authentic detail is to cut small squares of leather, punch a hole in the center, and use these as washers under the nails. This was a common custom and was probably for decoration, since the leather found on old hinges was usually dyed red or some other bright color.

These types of hinges work best on cabinet doors or other applications where the hinge is mounted vertically. The design allows the doors to be lifted off the frame for cleaning, etc., since they're open at one end, and they have to be made left or right-handed. If used on a flat surface, a butterfly or dovetail hinge is best used. It's made the same way, except two of the hinge leaves are pinned together in the usual manner. There is a bit more work involved, since you need to hacksaw out the gains and cut them with a cape chisel.
Napkin Rings and Tooling

Here's an easy project that makes a great housewarming present. Once you have the tooling, they're quick to make as well.

I developed this design for napkin rings as a result of needing a low-cost yet good looking item to sell at art galleries, but these work well as a small gift for friends.

The most difficult part of these is determining the length of the scrolled rods before they're bent into rings. This dimension will change depending on the diameter of the bender, which is made from a section of 1-1/2" pipe.

Making the bender is a simple matter of welding a scrap of angle iron on to the side of a section of pipe that's about 3" long. You can further modify the bender by optionally welding a small pivot point in the center of the pipe. This will allow you to use a regular bending fork in the bender. I've used a big roller bearing for this job, but anything with about 1/2" ID would work. Otherwise you can use a pipe sleeve that just fits inside the bender but you won't be able to use the handle for much else.

The handle part of the bender is pretty straightforward. I used the sleeved pipe method, but I wish I'd included the pivot. You may also wish to sleeve the bending pin with copper tubing or other soft metal to keep from scratching your napkin rings, but I haven't tried this.
Once you've built your bender, make a couple test rings. The sizes that you'll end up using may vary, but I'll give you the stock measurements that I use as a starting point.

I cut a few 16" pieces of 1/4" round and taper each end. Scroll one end, then turn it around and scroll the other end. These scrolls are so small that I do them freehand, starting over the edge of the anvil and moving to the vise to tighten things up. I have tried making a tiny scroll form, but it didn't work too well... it wasn't strong enough. If you want to go that route, maybe using spring steel would work.

The length of the scrolled piece is important. If it's too long or short, the scrolls won't line up in the finished piece. My bender has an outside diameter of about 1-1/4", and for this particular bender the center of the scrolls need to be 9-3/4" apart, but again, yours may be different. As it happens, this is the distance from the leading edge of my anvil to the forward edge of my hardy hole, so I can use my anvil as a ruler.

Now spin the handle around and bend up a ring. If you're lucky, you'll make two turns around the bender and end up with the two scrolls lining up on the same plane to form a 5 shape. It will most likely be a little off... this you can fix with a little hammering to compress or stretch the ring as necessary. If it's more than slightly off, though, you need to adjust your measurements. Figure out how much to add or subtract, and throw the test ring away... you'll spend twice as much time trying to fix one as you would making a new one from scratch. I know, I've tried it.

Once you have made one that lines up correctly, do yourself a favor and stamp the measurement directly onto the bender so you won't lose or forget it. I've done both.

You're not quite done yet. Wrapping the ring around the bender causes the steel to twist, and this twist makes the scrolls want to lean back into the ring too much. It's an easy fix, as shown below...

---

Once you have a piece scrolled, set up to bend one. The first one will really be to check your measurements, and will most likely come out too short or too long. Clamp the lower part of one of the scrolls against the bender in the vise as shown below.

Now wire brush all over, and give it a few coats of your favorite finish... I spray with clear Rustoleum®. Take these to your next housewarming party, and people will ask you about blacksmithing all night long. Tell them about ABANA!
FOR SALE

Help wanted... Fabricator/blacksmith. Layout, forge, and fabricate curved stair railings, furniture, gates, etc. Fax resume with salary requirements to Mission Iron Shop, San Diego, CA, (760) 744-0570 or call (760) 744-3740.

For sale... Hossfeld bender No. 2. Includes bender, stand and numerous dies, pins etc. $750 takes all, shipping negotiable. Photos possibly available upon request. Tom Kennedy, Orlando, Florida, (407) 859-2728, leave message.

Position Wanted... Fabricator skilled in fine, custom metalwork seeks temporary/journeyman position in blacksmith shop. Looking to improve forging skills in exchange for hard work and extensive knowledge in wide range of custom fabrication of ferrous and soft solder, plasma, forming, machining, finishing, layout, and design. Contact Erica Moody in USA - 617.354.0784 or emoody@excite.com

For sale... Fly press, J.M.S. Williams with cast stand. $1,000. Contact Ken Kohut, 30 Olive St., Danbury, CT 06810 or call (203) 744-3758.


The GPBA will be hosting a two day forge welding workshop taught by Bob Patrick on April 29th and 30th, 2000. 8 to 5 both days. Basic forging skills are required. We are limited to 20 people due to equipment availability. For further info, contact: Matt Wills, 316-456-2067- mwills@havilandtelco.com

Golden opportunity to live, work and sell from one location. Long established (35 years) artist-blacksmith is retiring. Prime location on hilly traveled US Rt. 1 in the heart of mid-coast Maine. Beautifully restored home (c. 1850) with attached ell and barn set up for art gallery. Separate workshop area with blacksmith, welding, finishing and woodworking shop. Approximately 2 acres of beautifully landscaped sculpture garden for outdoor work. Contact owner Gil Whitman, Gil Whitman Gallery, 416 US Rt. 1, Edgecomb, ME 04556 or call (207) 882-7705.

JOIN ABANA

[Graphic: ABANA logo]

Name: ____________________________
Address: _________________________
City: _____________________________
State: ___________________________ Zip/PC: _______
Country: _________________________

Type of Membership □ New Member □ Renewal
□ Regular - $45.00 □ Contributing - $100
□ Student - $35.00 □ Library - $35.00
□ Senior (65+) - $40.00 □ Overseas Air - $80.00
□ Overseas surface - $60.00

ABANA Chapter Affiliation: ________________________________

Application may also be made at the ABANA web site: www.abana.org

MEMBERSHIP APPLICATION

[Graphic: Application form]

Page 20