Hello to all... I'm Brian Gilbert, and I'm going to be the new editor for The Hammers' Blow. I wanted to write a brief introduction to let everyone know a bit about myself... my background, my thoughts about upcoming articles and issues, and why I'm so excited about being your editor.

I am primarily a self-taught blacksmith. My good friend Marsha Nelson got me started back in 1989 doing early American reproduction spatulas... I needed Christmas presents that year. I've been a professional blacksmith since 1993, but I've only taken one course, at J.C. Campbell. So while I am a "professional smith," and I have spent a lot of time in the shop, I don't consider myself anything close to a master smith. An advanced beginner, I'm sure... maybe even a journeyman, but not much more. (My wife Karen describes me as a "mid-career blacksmith." Perhaps that is an accurate description.)

But my abilities do not even begin to approach those of the previous editors of this publication, which gives me a touch of "stage fright," if you will.

But this isn't necessarily a bad thing. "The Hammers' Blow will publish material that is best suited for beginning and intermediate blacksmiths," according to the ABANA organizational procedures manual. This I can do. And I do have some ability and training in the graphics industry.

I've been the editor for the Appalachian Area Chapter for the last year, and I greatly enjoy writing and producing their newsletter.

The reason I'm telling you all this is to give you an idea of what to expect in the coming issues... my approach to this publication. I hope to get as many article submissions as I can from the ABANA membership, and whenever possible, I want to try

Continued on page 3
Shop Notes

by Brian Gilbert

Fabricated bottom fullers

Here's an extension of the welded hardy stems idea in the previous tip. In Chattanooga we have a place that sells cheap Chinese cross peen hammers. I turned one into two bottom tools with a chop saw and arc welder. Make three cuts, starting with the face, then weld on hardy stems as indicated. You will probably need to dress the swage by hammering in the appropriate sized rod, but remember to relieve the edges a bit. The fuller will need to be radiused as well. These won't make the greatest tools in the world, but they are serviceable and inexpensive.

Anvil tools with welded stems

Since I work at home and at our chapter shop, I carry my tools around a lot. I'm always looking to shave a bit of weight wherever possible. I've found that 1" thickwall square tube fits my hardy hole nicely. I pre-make several tool bases at a time, arc welding a bit of, say, 2"x1/4" onto a short tube stem. Then I heat them up good and hot, drop them into the hardy hole and give them a few whacks. This knocks down the weld a bit, allowing a better fit in the hardy hole, plus it relieves some of the weld stress. Of course, this may not be the best way to make anvil tools, but it's fast, neat, and I haven't broken one yet...

Illustrations by Brian Gilbert
A drift for handle eyes

This tip comes from Ryan Johnson. Whenever he punches a hammer eye, he predrills two holes through the annealed head, then uses this combination punch and drill to finish the eye hole. This greatly increases the chance of getting the eye to pass through the dead center of the head, coming out square and true. To get the shape of the drift, buy some handles first, then shape accordingly. I like smaller handles — smaller holes to drill, less metal to remove, and thicker sidewalls on the tool — but they’re not as strong, and less likely to stand up to much abuse.

Easy racks

Once I built all those bottom tools, I needed a system of easily built racks to get the shop organized. Here’s a couple of simple designs. The key is in the length — make them fit the spacing of the studs (16” in my shop). All those tools can get pretty heavy, so these need to be short and strong. The idea for the tong rack comes from Doug Coutts of the Possum Trot Forge. His design stores tongs with the reins closed... less likely to pinch fingers as the tongs are removed.

Keep those broken blades

When a bandsaw blade breaks, don’t necessarily throw it away. If it still has good teeth, it can be made into hacksaw blades and will probably work better than commercial ones.

— Ken Scharabok

Easy clean tumbler

I just ordered a cement mixer for my shop Christmas gift. I saw one at one of the Northwest Blacksmiths Association conferences that was being used as a tumbler to remove scale. Some of the blacksmiths involved in production work use tumblers for scale removal. Most use small nuts, bolts, punchings etc. in the tumblers. A vacuum system of some sort helps keep the tumbler clean. If not kept clean the scale dust clings to the forged pieces and if not completely removed can make the piece kind of gritty when waxed. The finish isn’t quite as dark as wire brushed.

— Gene Chapman

Editor’s note: An old clothes dryer will do the trick too. You can often get these for nothing when they quit heating. Either way, unhook the heating elements before using it to clean your treasures. Pretty soon all the porcelain will be knocked off the inside which is OK. But don’t try this in the one you use to dry your clothes!
Belt buckle and knife

Gene Chapman, former editor of the Northwest Blacksmiths Association’s Hot Iron News, is a pretty handy guy in the shop as well as the author of several books on primitive knifemaking. He sent in this idea for a belt buckle and an easy to make knife.

by Gene Chapman

This knife handle had an ugly dog forged on the butt, (Butt Ugly), made from 1/4” x 3/4” mild steel. A slot is hacksawed about 1-1/4” deep to hold the blade tang. The slot was sized by taking a heat, then driving a piece of thin spring steel (1/16” thick) in the slot and forging the handle flat.

Pins are 1/8” copper rivets. The 4” blade is 440C factory made, (stock # AT824, cost $4) available from K&G Knife Finishing Supplies, P.O. Box 458, Lakeside, AZ 85929-0458, (520) 537-8877.

The tang was shortened and a second hole drilled in it. The hole area was softened with a torch. Don’t heat the blade.

This is a good project for those who don’t want to mess around with making blades. Old garage sale knives are also cheap and can be recycled into fun knives with blacksmith handles.

These images were adjusted in Levels in Photoshop a bit.

I’m having fun forging here. Trying to build inventory for next year. I wholesale my line out to several dealers in Washington and one in Montana.

Happy Hammering,

— Gene Chapman

Editor’s note: Gene made these images by placing them in a glass bottomed box he made that goes on top of his scanner. The knife and belt buckle were scanned as grayscale images and saved as tiff files, then adjusted a little in Adobe Photoshop to improve the contrast. Try it, it works great.
Clevis from pipe

by Pat McCarty

BAM has a trade item at its meetings and last summer the item was a fishing lure. I came up with this technique while studying how they attached spinners to lures at the factory.

Start by cutting a 1/4" section off a piece of pipe with a chop saw.

Heat cut off section and flatten on the anvil. Don’t go all the way flat.

Illustrations by
David Wilson

Using a piece of round stock for a mandrel, flatten the center section completely.

Now bend the ends the hard way until the holes line up.
One of the most wonderful aspects of working hot iron is the ability to produce looks of wonder in the eyes of your beholder. And nothing does this better than to whip a knot into the middle of a fireplace poker or the like. Once the iron's cool, you can hand it to the curious onlooker and tell them to untie it.

To tie a knot, start with a piece of round stock in 1/2" or smaller diameter. It is possible to tie larger size stock, but it's quite an effort.

Begin by heating and bending a wide loop that meets itself at a 90 degree angle. Keep the circle large at first.

Now point the end into the circle and hammer around, never hitting the same spot twice. You should end up with a pretzel shape like Illustration 1 at left.

Bring the end up as shown in Illustration 2 and begin closing the loop. Start hammering closest to the end you are holding and go around the loop. Avoid closing the loop too far.

When you get the knot closed down enough, you can switch to hammering against the side of the anvil as shown in the Illustration 3 below.

Illustrations by David Wilson
Once you have the knot completely tightened, straighten the legs until they align. It might help at this point to bend one end 90 degrees, cool, and clamp the other end in the vise. Heat the knot area with a torch and hammer on the 90 degree bend to further tighten the knot.

For knots in very large stock, try making a slide hammer like the one shown at right. To use this technique, start the knot as described above. Forge a loop in one end of the stock. Slide a long length of heavy pipe over the stock, then bend the other end 90 degrees.

Now you can hang the heated stock from a hook in the ceiling and slide the pipe “hammer” up and down to close the knot. This is the same strategy used in auto body dent pullers.

You could also fabricate a hydraulic device to pull the knot if more power is needed.

I’ll leave it to you to discover where this technique can be applied. One idea is to use it in your balluster for the ABANA 2000 Conference.
When Paul Zimmermann came to the United States to demonstrate at the 1994 ABANA Conference, he found his forge site lacked a poker. So like any good blacksmith his first task was to make one. Paul returned to St. Louis last year to demonstrate at the Oktoberfaust event and instantly recognized the '94 poker still being used by my brother, Pat, who scrounged it from the conference leftovers.

Paul's poker is easy to make and effective around the forge or the hearth.

**Step 1:** Start this one by hammering a length of 5/8" round to a flat section 3/4" to 1" wide and 6" long. Keep it straight. Turn your hammer on its side slightly to use the fullering effect of the rounded face. Point the end.

**Step 2:** Square 3 inches of the stock and add your favorite twist.

**Step 3:** Bend flattened section to 90 degrees just in front of your twist.

**Step 4:** Flatten another 9 inches or so of stock on the opposite end as you did in Step 1.

**Step 5:** Put the flattened section on edge with 2 inches on the anvil. Hammer straight down to form a long, skinny offset.

**Step 6:** Bend the flattened section into a loop and point the drawn out section up. (Note: Heat just the part to be bent or the flat sections will have a tendency to bow and will be difficult to straighten.)
Step 7: Now wrap this drawn out section around the parent stock. I found it helps to put the heated stock to be wrapped in the pritchel hole and then twist the poker.

Step 8: Complete the business end as follows: With the point up, push the stock against the anvil horn and hammer down into a loop. You should have 1/3 of the stock on one side of the handle and 2/3 on the other side. Be sure the point is centered.

Step 9: Make a few minor adjustments and your poker is finished. Now make the rest of the tools with the same handle end treatment.
Cow bell

In my part of the Ozarks cow bells were a common item blacksmiths made. Their purpose was to help the farmer locate his cattle in the days when free-ranging stock was the rule. With a well-made cow bell, a farmer could tell where his stock was by the sound of the bell and could distinguish his stock from his neighbors from its distinctive ring. Pat McCarty demonstrated making this at BAM's November meeting.

Start by cutting the pattern on the page at right out of light gauge steel, say 16 to 18 gauge. Different gauges will give you different sound.

Bend the sides up as shown by the dotted lines on the pattern. Then heat in the center and bend sides together.

This tool is made from welding three pieces of 1" square together. It will help you shape the sides and bring them together.

Illustrations by
David Wilson
Cow bell pattern

Enlarge or reduce to change size of your bell

Cut on solid lines, bend on dotted lines
After you bring the sides together (they should overlap), drill holes large enough to accept a 16 penny nail. This will be your rivet. Note that the pointed tabs on the top get bent down and riveted along with the sides.

Heat the tabs and bend down. Cut a quarter inch or so of nail and install with the head inside the bell. Place over the anvil horn and carefully pein the rivet over. Rivet top and bottom on both sides.

Lay the bell on its side in the coal forge and heat to a dull red. Throw a pinch or two of Borax into the seam. Lay a piece of brazing rod on the seam and heat gently until the rod melts and disappears. Let it cool some and repeat for the other side. Don’t skip this step or your bell will sound whimpy! Braze all joints.
Drill three 1/4” holes for handle and clapper holder.

Forge the handle from 1/4” round, use a chisel to split the ends.

Insert handle into bell and spread the ends just enough to keep them in place. Braze the handle in place.

Forge the clapper holder into a loop, insert in hole in bell and use a chisel to split end just enough to keep it in the bell. Braze to the top of the bell.
The clapper comes next. Forge this from a piece of 1/2 inch round. Make a ball by spring fullering 1/2 inch from the end. Round the end while supporting the fullered section on the anvil horn. Work into a ball shape, never hitting the same spot twice.

Draw out the clapper end from the fullered area. Bend the drawn out end into a loop.

Attach to the bell and, using a needle nose pliers, bend the loops closed. Heat bell carefully (don’t melt the brass!). Quench in water. Make some noise!
Forged pod motif

by Lorena Babcock Moore

This is from my jewelry demonstration at the Rocky Mountain Blacksmiths Conference in Carbondale, Colorado, in August 1999. I use pods to add 3-dimensional interest to jewelry and bell clappers made from 3/16, 1/4 or 1/2" square bar. My inspiration comes from the Devil’s Claw pods that I found in the Arizona desert, but the motif is not original and allows for many variations, several of which can be seen in African ironwork. It is an easy “How did you do that?” kind of design. Most people assume that the bar must be split, but it is only flattened, curled and partially opened out again.

Step 1: Flatten a section of square bar. The longer the flattened section, the longer the pod will be. The middle part will be the thinnest and widest. Don’t hammer it too thin or it will tear.

Step 2: To curl, set the wide thin edge against the anvil and hammer the opposite side to make a tube.

Step 3: Draw out and round the ends of the pod. The transition from the curled part to the tapered solid part defines the shape, so work this carefully. Now you have a tapered tube, what gold and silversmiths call a “spiculum.”

Step 4: Use pliers or small tongs to pinch open the pod shape. I use a pair of large pliers with flat, round-tipped jaws.
I often use carbon steel "cut nails" for jewelry that requires extra strength, such as this pod hairpin. The Tremont nail company makes several kinds of cut nails, each with a different name and intended use. I use the heavy "cut spikes."

To order a Tremont catalog, call 1-800-842-0560 or see their web site at www.mazenails.com.

The twist used for the hairpin is hexagonal in cross section, made by flattening two corners of a square bar. This gives a pattern of alternating high and low ridges, which adds an intricate touch to small work.

Pod hairpin forged from a 4" Tremont cut spike. It measures 8-1/4" long. Note the twists. Before twisting, the stock was hammered into a hex shape.

Pliers used for opening the pods.
This Devil’s Claw found in the Arizona desert is the inspiration for Lorena’s pod jewelry.

This pod pendant is forged from a 3” length of 1/2” mild steel square bar. It measures 3” x 2”.
Notice

New ABANA contacts:

The address to send dues, change your address, request material or back issues and the like is ABANA, P.O. Box 816, Farmington, GA 30638. The e-mail address is abana@abana.net. Phone is (706) 310-1030.

To send material or comments to The Hammers’ Blow, the address is The Hammers’ Blow, c/o Brian Gilbert, 3404 Hartford, Chattanooga, TN 37415. The phone number is (423) 876-9990. E-mail: hammerguy@mindspring.com.

For The Anvil’s Ring, it’s 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: www.abana.org

Classified

For sale: 150 pound cone mandrel with groove, $310 U.S. 100 pound swage block, modern design, $205 U.S. New manufactured malleable iron. Gunner Jorgenson, 2031 13 Avenue, Invermere, B.C. Canada V0A 1K4.

For sale: New Zeller SOFA firepots for sale. Contact Gerald Hawkins, 132 Weinland Dr., New Carlisle, OH 45344 or phone (937) 849-6964.

For sale: Air hammer for sale, Old Blue, low usage, $2,800. Call (828) 669-1001 or fax to (828) 669-1400 or e-mail to mtnforge@aol.com or write to Black Mountain Iron Works, 120 Broadway, Black Mountain, NC 28711.

Wanted: Power hammers, Prefer Little Giant or Mayer Brothers 25, 50 or 100 pound hammers, running or in need of repair. Distance not a problem. R.N. Brown, 6940 E. 550 N., Decatur, IN 46733; (219) 724-7554 after 6 p.m.

New 3-phase rotary converter, 5 h.p. Has panel box with three breakers, $550. 10 h.p. $650. Also new style 25-pound Little Giant, $1,800 and 50-pound high speed hammer good for sheet metal, $2,500. Also woodworking tools including large jointers and a bandsaw. Contact Bob Bergman, Postville Blacksmith, (608) 527-2494.

For sale: Di-Acro #1A bender for sale, very good condition, with heavy factory base. There is very little tooling. $250 or best offer. Please contact Gil Watkins at 304-727-6331 or send e-mail to Anvilgil@aol.com.

Heavy duty frying pan blanks: Steel, approximately 9 inch in diameter with 2 inch sides. 12 gauge thickness. Available with or without two 3/16 inch holes for handles. Now tumbled clean. 1-4 $9 each; 5-9 $8 each; 10 or more $7 each. Shipping $2.50 plus $.50 for each pan. Contact: Bob Tufter, 3855 Aspen Hills Dr., Bettendorf, IA 52722.

Books: For blacksmithing books contact Norm Larson, 5426 E. Hwy. 246, Lompoc, CA 93436 or call (805) 735-2095. Ask for his catalog — he offers hundreds of books on blacksmithing and related topics.

College credit: Sir Sandford Fleming College, Haliburton School of Fine Arts offers one week courses in Blacksmithing and Ironwork as well as a 14 week Artist Blacksmith Certificate Program. For further information about these courses as well as nearly 300 other art courses, contact Sir Sandford Fleming College, Haliburton School of The Arts, Box 839, Haliburton, Ontario, Canada KOM ISO or call (705)457-1680 or e-mail rmaguire@flemingc.on.ca

Help wanted: Skilled ornamental iron craftsman. Motivated self-starter to handle total job, invention to finished product. Good forging skills required with a minimum 2 years experience with steel and brass. Salary and benefits commensurate with ability. must be willing to relocate to Charlottesville, Virginia. Mail resume to Stokes of England, LC, 4085 Keswick Rd., Keswick, VA 22947 or fax to (804) 295-1623.
Great News!
The year “2000” brings many great opportunities to Abana Members. As you may already know, Industrial Coverage Corp. has been working very hard to enhance our current insurance program and has also developed many new programs exclusive to our members. Some of the latest developments for ‘00 include a discount benefit program and an occupational accident policy.

Don’t Miss Out!
Many members have already taken advantage of Industrial Coverage Corp.’s specially priced Business Insurance Program. These members have said that they saved up to 50% off of their previous liability & property premiums. It’s the best way to cover your
Call now for a phone quote!!

ICC has now made Occupational Accident coverage available for self-employed individuals. This product is ideal for the self-employed member or for principals who have elected to be excluded from workers compensation coverage.

A Discount Benefit Program is also now available to our members. This program is designed to provide discounts up to 70% on various services such as prescription drugs, vision care, and dental care.

Priority for ‘2000’
In the past few years many members have expressed concern at the rising cost of health insurance. With this in mind, ICC working on a comprehensive health insurance program a priority for ‘00. In addition, we are in the process of developing a discounted program for your Personal Auto and Homeowner policies. Keep an eye out in the Anvil’s Ring for further information.

For specific information regarding the Business Insurance Program, please contact Michael Romeo Jr. at 1-800-242-9872, ext. 115. For information regarding the Benefits Program, or the Occupational Accident Insurance, please contact Michael A. Donato at 1-800-242-9872 ext. 116, or visit our website @ www.industrialcoverage.com

Sincerely,

Joseph M. Romeo
President
INDUSTRIAL COVERAGE CORP.
has hammered out a NEW & IMPROVED commercial insurance program that will deliver

- BROADER COVERAGE
- PHONE QUOTES
- SPECIALLY PRICED COVERAGE FOR
  Hobbyists • Part-Time Blacksmiths • Full-Time Blacksmiths

NOW AVAILABLE!!
- Occupational (On the Job) Accident Coverage for Self-Employed Blacksmiths
- Dental Insurance As Low As $4.95 Per Month

ABANA ENDORSED INSURANCE PROGRAM
CALL 800-242-9872 EXT. 115
Ask for Michael J. Romeo

3237 Route 112
Medford, New York 11763
Fax 631-736-7619
Visit our website:
www.industrialcoverage.com