N.J.B.A. Newsletter

NJBA Volume 20, Issue 3 02/28/17
http://www.njblacksmiths.org

Upcoming Events

Get you calendars out and mark these events down. Please bookmark our web site and check for updated meet information. Remember most of our meets have an "Iron in the Hat" drawing, so be sure to bring something.

Date TBD MAST Event. The Marine Academy of Science and Technology (Fort Hancock, Sandy Hook) has asked NJBA to hold an open forge meet for their high school junior class of 70 students. (8 AM to 2:30 PM on a **weekday**, probably before the end of April.) This is not a meet open to NJBA members generally, but **we are soliciting additional blacksmiths to assist.** Contact NJBA Director Bruce Freeman for further information.

Sat., Apr. 22 Blade-Making Demonstration and Workshop. 10 AM to 4 PM at Marshall's Farm. **Workshop fee: $100 plus $25 for materials**, due on registration. No charge to attend the demonstration, including the Iron-in-the-Hat drawing and tailgate sale. See details later in this newsletter.

Sat., May 6 Greater Newark Museum Mini Maker Faire. Any NJBA member who wishes to demonstrate should contact Bruce Freeman for details -- as soon as possible, as last minute additions to the crew will not be possible. See details later in this newsletter.

Sun., May 7 Peters Valley Open House. 11 AM to 4 PM, at the Peters Valley School of Craft, Layton, NJ. Tailgate sales welcome. See details later in this newsletter.

Sat., May 20 "Forged in Fire" Blacksmithing Demonstration at the historic Joseph Turner house, Hampton (Hunterdon Co.), NJ. See details later in this newsletter.

Sun., May 21 Walnford Day. Bruce Freeman will demonstrate blacksmithing for the public in Historic Walnford Park, **62 Walnford Road, Upper Freehold, NJ.** See details later in this newsletter.

Sat. May 27 Damascus Workshop. 10 AM to 4 PM at Marshall's Farm. **Workshop fee: $100 plus $25 for materials**, due on registration. See details later in this newsletter. Tailgate sales welcome.

Sat., June 3 NJBA (Bring-Your-Own) Picnic and Open Forge Meet. Rain or shine, at Marshall's Farm. No admission charge. New nonmembers may participate in the open forge meet (but must join before participating in any additional hands-on events). See details later in this newsletter.

Autumn? Anvil-Repair Workshop. NJBA is considering holding another anvil-repair workshop. Probably cost: $125 per anvil (for basic edge and gouge repairs only),

Your renewal was due by September of 2016. ***If you have not renewed, this is probably your last newsletter!***

The New NJBA Web Site!

The NJBA Web Site is:

http://www.njblacksmiths.org

The Newsletter is at:

http://njblacksmiths.org/archive/index.htm

or use the link on the NJBA web site for the newsletter.

Official NJBA Address

NJBA, P.O. Box 224
Farmingdale, NJ 07727-9998

We like to thank those who joined NJBA as Business Members ($40 dues):

Marshall Bienstock

Bruce Hay

NJBA Board of Directors

List not available online

An NJBA Insurance Crisis

Last September, NJBA paid its full year's insurance premium of $255. A few weeks later we received a bill for an *additional* $3500, with the warning that our insurance would be cancelled if it weren't paid by the end of the month! Since this sum exceeded the funds in our treasury, we did not pay it, but contacted our agent. By December the carrier had indeed cancelled our insurance coverage and NJBA filed a complaint with the NJ Dept. of Banking and Insurance. Since it was apparent that the matter was not going to be resolved quickly, the NJBA Board suspended all membership activities of NJBA indefinitely.

Subsequently, the insurance carrier corrected its its misclassification of NJBA and lowered the premium to about $650 or so (in addition to the $255 we already paid), but with the *proviso* that we would no longer be able to obtain certificates of insurance for venues like the Red Mill, Middlesex Co. Fair, and others.

At this juncture, NJBA Director Eric Von Arx found a better insurance policy for $653, and got Board approval of the change in carriers. The Board then voted to resume activities effective. Considerable thanks is due Eric for his efforts, including his paying the premium by credit card and letting NJBA pay him back.

The December vote to suspend activities *also* suspended admitting minors to any hands-on activities, including open forge meets, due to potential liability. For the moment, the Board has not reversed this decision and is considering the issue further.

A Timely Donation from the Suhakas

At the last NJBA Board meeting, Ben and Ceil Suhaka presented NJBA with a $200 donation toward the cost of NJBA's new insurance premium. They were thanked and applauded by the Board.

Open Forge Meets

Members are welcome to attend our open forge meets. Nonmembers are invited to try your hands one time. NJBA requires you to join before continuing. The application form is on the last page of this newsletter.

Monday Night Open Forge, Howell, NJ

Marshall Bienstock hosts an open forge meet every Monday evening at 7 PM, except major holidays. (Please call ahead on holidays to make sure: 732-221-3015.)

Sunday Open Forge, Smithtown, LI, NY

From the beginning of November through the end of April, Ron Grabowski will open his forge to NJBA members. 110 Burlington Blvd., Smithtown. Please call ahead to confirm and get directions: 631-265-1564. Ronsforge @aol.com

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Blade-Making Demonstration & Workshop

On Saturday, Apr. 22, professional swordsmith and NJBA Director Mark Morrow will demonstrate the forging of a small blade in a demonstration open to the public. This demonstration will be followed immediately by a workshop in which he will coach participants through the making their own blades. The event will run from 10 AM to 4 PM at Marshall's Farm, 663 Casino Dr., Howell, NJ. The fee for participating in the workshop is $100 plus $25 for materials, and is due on registration (not later than your arrival at the event). Space in the workshop is limited. Contact Mark to register for (and to secure your space) in the workshop. Like all hands-on events, this workshop is open only to NJBA members, but nonmembers may join when registering by paying the $20 membership dues. Admission to the demonstration (no hands-on) is free, but

please bring a contribution to the Iron-in-the-Hat drawing. Tailgate sales welcome.

Greater Newark Mini Maker Faire

On Saturday, May 6, NJBA Director Billy Barret will be demonstrating blacksmithing at the Maker Faire to be held at the Newark Museum (where there's a "Sketch in Iron" by Samuel Yellin). NJBA has demonstrated at this event the past two years. The event runs from 11 AM to 5 PM (with set-up before 10:30). Any NJBA member who wishes to demonstrate should contact Bruce Freeman for details -- as a form must be filled out and submitted to the Museum in advance, making last minute additions to the crew impossible.

The Maker Faire is "A mix-up of science fair, farmer's fair, interactive show-and-tell, ... tech gurus, crafters, educators, tinkerers, hobbyists, engineers, science clubs, authors, artists, students, and start-ups. ... hands-on activities, learning opportunities and the chance for visitors to learn new skills such as glass work, sewing, rocket building and welding."

See www.newarkmuseum.org/greater-newark-mini-maker-faire , or www.newarkpulse.com/events/event/114649 for further information on tickets, directions, parking., etc.

Peters Valley Open House & Studio Tours

On Sunday May 7, 11 AM to 4 PM, the Peters Valley School of Craft (19 Kuhn Road, Layton (Sussex Co.), NJ; PetersValley.org) will hold an open house with studio tours. NJBA Director Billy Barrett will be there, demonstrating blacksmithing. Jake Brown, Blacksmithing Artist Fellow, invites experienced blacksmiths from NJBA to demonstrate the craft to the public. The event is free.

Tailgaters are welcome, but (1) you must call Jacob Brown before the event (at 773-428-5253, so he can plan for the parking), and (2) you must be set up before 9 AM the day of the event. (If he doesn't pick up, just leave a name and number, and a message that you want to tailgate at the open house event.) Tailgate sales will be between the blacksmith shop and the red barn just beyond the it, in the small turnaround / parking lot. (Lat. 41.1934266, Long. -74.8524469) Only those tailgating or demonstrating in the blacksmith shop will be allowed to park in this area.

Lindsay Gates, Development Director, tells us that this event is one of the primary ways that Peters Valley gets the public excited about coming to take workshops and to learn more about blacksmithing and other art forms. Demonstrators will be working in all of the PV studios, and a shuttle bus will tour you about. Visitors can watch artists forge metal, weave cloth, turn wood, carve sculptures, create jewelry, etc.; tour our current gallery exhibition; purchase the works of over 200 American artists; and view photos and literature about the history of the area. There will be live music and great food available throughout the day from Green Valley Farms. PV loves dogs but cannot allow them on the campus during these events. For further information, contact Lindsay Gates at 973-948-5200 or craftfair@petersvalley.org.

"Forged in Fire" Blacksmithing Demo

On May 20th (rain date May 27) the Union Forge Heritage Association will hold its first event of the season, "Forged in Fire," from noon to 5 PM at the Joseph Turner house, 117 Van Syckels Road, Hampton (Hunterdon Co.), NJ. The event features forging demonstrations by the NJBA, lectures, demonstrations of antique firearms, tours of the Turner House museum, and displays of colonial ingots from the Iron Works. The event and parking is free. (Suggested donation: $7).

NJBA members who are interested in participating in the blacksmithing demonstration

should contact NJBA Director Ryan Amos.

According to Michael Gronsky, Jr., President of the UFHA, the Union Iron Works is the oldest continually operating foundry in U.S. history and the country's second oldest business, and 2017 marks its 275th anniversary. The Union Forge Heritage Association (UFHA) is marking this milestone with a year-long calendar of events revolving around this important company. Visit the UFHA wesite, UnionForgeHeritage.org, for their calendar of 2017 events.

Walnford Day

Sunday, May 21 is Walnford day at Historic Walnford Park, 62 Walnford Road, Upper Freehold, NJ. This is always a nice day. The mill and the historic home will be open for tours, and there will be various crafts demonstrations, many of them hands on. (Blacksmithing is hands-on only for NJBA volunteer demonstrators.) NJBA Director Bruce Freeman will bring one or two forging stations (depending upon whether anyone else plans to demonstrate). He'll be setting up around 10 AM (for a demonstration running from 11 AM to 5 PM) and would welcome assistance or other demonstrators. Contact Bruce if you'd like to help demonstrate, or just stop by the park and visit.

Damascus Workshop

Saturday May 27, professional swordsmith and NJBA Director Mark Morrow will teach the making of a billet of Damascus steel at a workshop to be held 10 AM to 4 PM at Marshall's Farm, 663 Casino Dr., Howell, NJ. The fee for the workshop is $100 plus $25 for materials, and is due on registration (not later than your arrival at the event). Space in the workshop is limited. Contact Mark to register for (and secure your space in) the workshop. Like all hands-on events, this workshop is open only to NJBA members, but nonmembers may join when registering by paying the $20 membership dues. Tailgate sales welcome.

NJBA BYO Picnic and Open Forge Meet

Saturday, June 3, from 10 AM—4 PM, NJBA will hold an open forge meet and (bring your own) picnic at Marshall's Farm, 663 Casino Dr., Howell, NJ. We will set up our lightweight forging stations and you can try out your hand at light forging. If you are a novice blacksmith, there should be plenty of more experienced hands around to give you pointers. In case you are a woodworking blacksmith, one of our members plans to forge a traditional European-style woodworker’s holdfast for a bench and perhaps an English-style holdfast and a traditional style bench dog. This event is on, rain or shine (we have canopies).

NJBA will provide drinks, paper plates, utensils, etc., for the picnic; attendees must bring their own food. If you don’t care to bring a picnic lunch, you may get lunch “to go” from one of the local establishments. Families are welcome, but children must be supervised at all times by an adult. (Since there are deer in the area, the use of tick repellant may be advisable.) Please bring an item for the Iron-in-the-Hat drawing, and feel free to bring stuff to tailgate. Contact NJBA Director Bruce Freeman for further details.

Report on the Princeton Open Forge Meet

by Bruce Freeman

On Oct. 8, I loaded 2 complete forging stations into my Nissan pickup truck and headed for Princeton. I had weighed most of the equipment, and when I estimated the total I was bringing, it came to half a ton. This was good because that happens to be the load capacity of my pickup. (It also explained why my truck behaved poorly last season when I loaded up with 3 complete forges ...)

I arrived at Bowen Hall, Princeton University, at 10 AM and found Doug Learn and his

son Calum already there and largely set up. There were a few folks around, so I enlisted some of them to help set up the three canopies and the rest of the equipment. NJBA member Tony Fresolone arrived during this time and we fired up the two forges. By the 11 AM, the official start time, we had three forges up and ready to work. Billy Barrett, who had been delayed in traffic, arrived about then and set up.

I lost count of the number of students who tried their hands at forging, but it was a good number and the event was very well received.

We started breaking down the fires at 4 PM and by 5 PM, the site was cleared and my truck was loaded and ready to go. This is noteworthy: It took one hour to set up and one hour to break down -- much faster than we ever managed with the old, heavy equipment.

Report on the Vise Stand Workshop,
by Bruce Freeman

On November 5, I arrived at Marshall Bienstock's shop early to help do some tidying of his shop. We cleaned off the table (made of a door and two sawhorses) apparently for the first time in a year or more, for, lo and behold, we found the two books that had been donated to NJBA and we had thought missing all that time! Soon folks started arriving to help with the workshop, and they helped with the tidying.

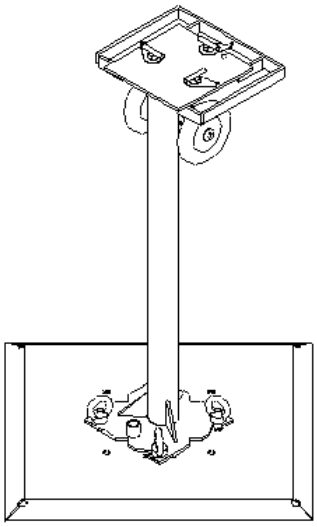
I set up my drawings and flowcharts and started getting folks busy with the several tasks . In short order we had Julie LaChance, Ryan Amos, Bob Bozzay, Bill Lodato, Al Mottram, Ron Jani, and Bob Crowder helping out.

Marshall fired up the Ironworker for shearing small stock and punching three different plates for each vise stand. Jennie and Ryan assisted Marshall until I got them working on the tables and bottom plates for the post assembly - drilling scribing, and saw-cutting notches. Bill is a weldor, so he headed up our welding efforts: tool bars and wing bolts.

Bob B. and Al notched the corners of the base plates. Then Marshall set up the brake and Ron and Al did the bending. I aligned the corners and checked that the base plates sat flat on a flat floor.

I believe it was Bob B., Bob C., Al, and Ron who took on the job of bolting the reinforcement plates to the underside of the base plates. Here we hit a snag when it seemed the five critical holes would not always line up. Marshall put a reamer on a drill and reamed out the holes, improving the situation greatly, but some hand work was needed after the workshop, as I'd probably made the tolerances too tight.

Next the bases went to a welding station where the several struts were added. Bill headed up this effort. After a while he got Ryan do-



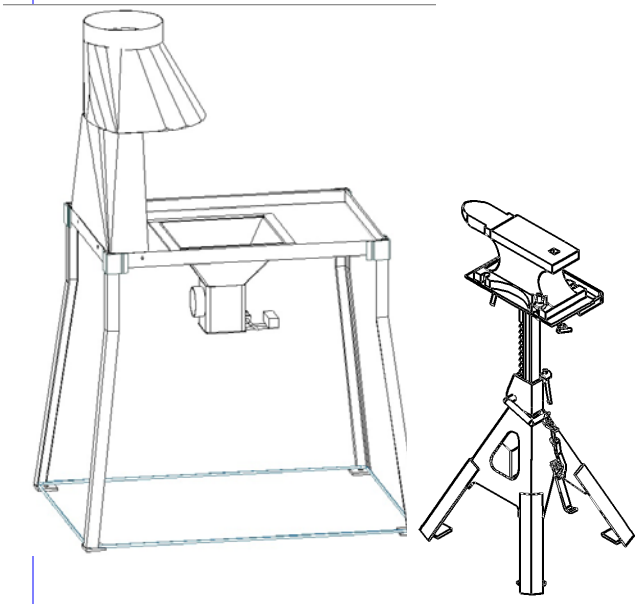
ing welding, and then started Jennie at a second welding station. In the late afternoon, Marshall set up a third welding station and started work welding the posts to the post-bottom plates.

I lost track of what each person was working on otherwise, but every time there was a task

to do, there was a person ready to do it. At the end of the day, Dave Megill pitched in to finish up the welding on the last base.

Hence, we finished up all five bases, all five posts and all five tables (except for some minor parts), but fully finished only one vise stand.

Since the workshop, Marshall and I have worked to finish the remaining vise stands. Four vise stands, including the prototype, are now finished and ready to use, and we're working on the other two, which are largely complete.



NJBA's Lightweight Forging Stations

The following equipment is ready to use:

· Six forges including firepots, hoods, and flues
- Three hand-crank blowers for forges
- Six anvils & stands
- Four vise stands
- One toolbox of hand and fire tools
- A few canvas sacks with plastic bags of coal
- Several tin tubs for use as slack tubs

One forging station, including a canopy, coal, hand tools and fire tools, weighs about 500 lb total.

Equipment Needed, and Progress … by Bruce Freeman

NJBA really needs to inventory its tools, but the following is a brief description of what we have and need. If you have tools you'd like to donate to our six toolboxes, please contact any NJBA Director

Tool Boxes. We have at least four boxes, but need to fill them with hand tools (hammers, tongs, etc). These should be run-of-the-mill tools, not expensive ones. Although a good stock of equipment may be desirable, we must not make these boxes too heavy to lift easily.

Hammers. NJBA has a decent stock of hammers, but with six toolboxes, we may need more.

Tongs. Poz tongs are most generally useful, and we have only a few. Horseshoer's tongs and others are also useful. Vise Grip™ pliers can sometimes be used when nothing else works. Tongs should be less than 18" long, to fit in the tool boxes.

Hardies. We need more cut-off hardies. (with 7/8" square stems). Ryan Amos has begun making more from a truck axle. Other hardy tools might also be useful.

Fire Tools. We need to assemble about 3 more sets of fire tools and distribute these amongst the six forge stations.

Blowers. Blowers are the current bottleneck to completing the six forging stations. If you know of a lightweight hand-crank forge blower we can procure, please let me know. I have tested one lightweight hand-crank blower that I have, but its performance wasn't stellar. I also adapted an electric "bounce house" blower to drive a forge, but it's too powerful. The ash door had to be opened an inch to gain adequate control of the blast, lest it blow the fire out of the firepot.

Incidentals. A few more stakes from 3/8" re-bar for the vise stands and the blower stands.

Controlled Hand Forging Lesson 13

Cutting a Bar

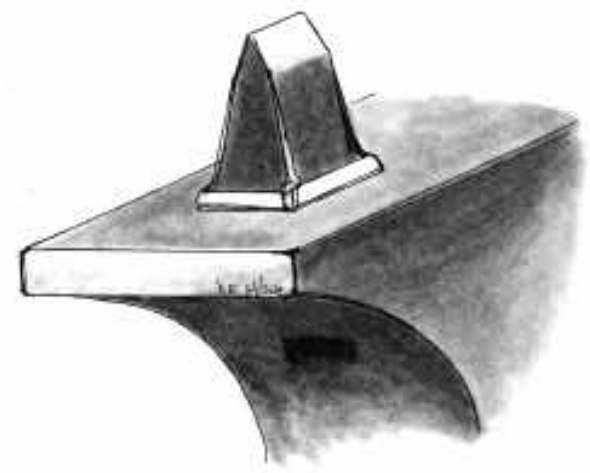
by Dan Nauman
Illustrations by Doug Wilson
Lesson #13

Definition: Cutting a hot bar using the hot-cut hardy.

Note: A hot-cut hardy has a cutting edge of about 25 to 30 degrees. A cold-cut hardy has a cutting edge of about 60 degrees.

Intent: To learn to cut through a round, square, or rectangular bar using the hot-cut hardy on the anvil, making a clean and even cut, with the resulting burr located in the center of the cross-section of the bar. With the burr in the center of the bar, it will make life easier for following forging operations such as upsetting the end of the newly cut bar.

It must be said here that this method is not necessary for all cutting applications. A bar can be cut faster (and easier) by driving the bar down into the hardy from one side. This procedure will leave a burr on one side of the bar, and will also create an angled edge on the end.



A hardy with the cutting edge parallel with the anvil's edge.

This edge may be desirable in some circumstances, i.e., starting a taper on the end of the bar, or an intentionally angled end of the bar to form a scarf.

Tools: Anvil; hot-cut hardy; hammer; soapstone or chalk.

Material: 1/2" square x 12" mild steel.

Forging Dynamics: The angle of the cutting edge of the hardy is important when cutting hot metal. With the narrower cutting edge of the hot-cut hardy at 25 to 30 degrees, the material being cut will not only distort less, but the act of cutting will be more rapid. The wider 60-degree cutting edge of a cold-cut hardy will tend to distort the material, i.e., creating a wide v-notch, and also potentially reducing the cross-section of the bar from the additional hammer blows necessary to drive the bar through a thick wedge.

Step One

Measure 2" from the end of the bar and mark that distance with soapstone on the bar. Place the cold bar on top of the hot-cut hardy edge, with the 2" mark directly above the cutting edge. Turn the bar up onto its corner. With your hammer, strike the bar down onto the hardy, hard enough to make a good nick. This nick will be used to indicate where the bar will be cut when hot. (For alternative marking methods, see "Notes" at the end of this lesson.)

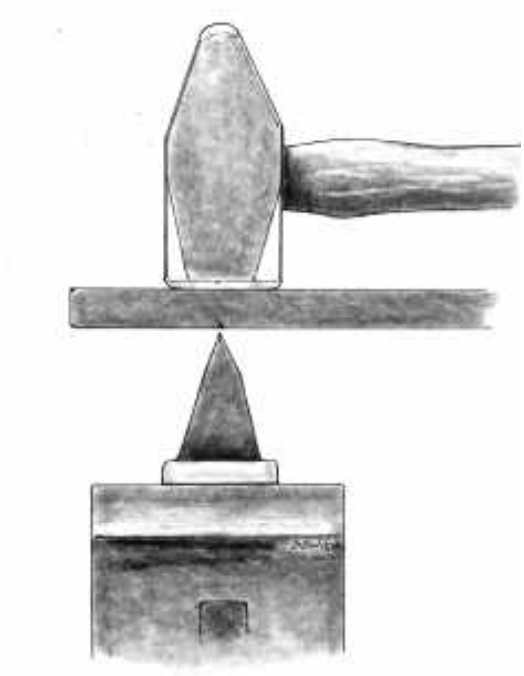
Caution: Nicking the corner of a bar on a hot-cut hardy as in the manner of Step One could damage your hardy's cutting edge if you are using cold-rolled steel. Cold-rolled steel (as milled) is harder than hot-rolled steel of the same type. Once heated, or normalized, the cold-rolled steel's properties match that of hot-rolled steel.

Also, this method is never a good idea if forging high-carbon steel. Review the alterna-

tive marking methods at the end of this lesson, and use good judgment.

Step Two

Heat the area to be cut to a yellow heat. Place the bar on the hardy, and move the bar back and forth to find the nick. Turn the bar onto its flat side (side "A") and hit a solid blow.



The hammer correctly placed over the bar and hardy

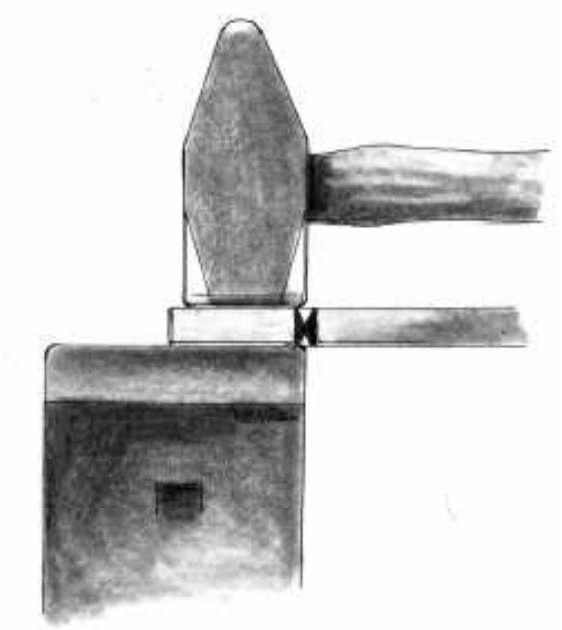
Note: Keep the bar parallel to the face of the anvil, and 90 degrees to the hardy, at all times during this process.

Turn the bar 45 degrees (right or left), and strike again lightly to mark the corner. Continue to turn the bar in the same direction to mark the next face with a sharp blow.

Reversing the direction you have previously turned the bar, turn the bar back to side "A," and then turn 45 degrees and lightly nick the corner. Proceed in the same direction to the next face, and mark this face with a sharp blow.

Next, turn the bar 90 degrees to the fourth face. Look down at the bar from a bird's eye view, and you should be able to line up the nicks on the bar with the cutting edge of the hardy. Once you have lined up the nicks, proceed to strike the bar solidly.

Continue rotating the bar to each face, and continue cutting into the bar. Cut until the thickness of the area uncut is roughly 1/8". *Note:* Do not cut the bar all the way through… as you may sever the bar, and you may damage your hammer as well as the hardy. Severing the bar could also send the very hot, cut-end of the bar sailing across your shop.



Weighting one end of the bar with the hammer to twist the bar.

Step 3

There are several methods to break off the end of the bar. You may:

A.) Hold the short end of the bar with tongs or hammer and bend up and down or twist until the end breaks off.

B.) Shear the end of the bar by lining the cut up with the far edge of the anvil and strike down on the protruding end with your hammer.

C.) Quench the area cut with water. This will mildly harden the bar so that the bar can be