

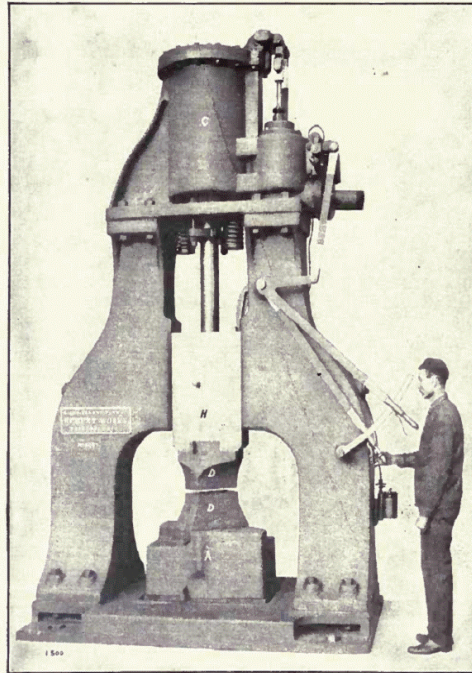


FORGE

Dedicated to the revival of the "King of Crafts"

Vancouver Island Blacksmiths

www.vibblacksmiths.com



Steam Hammer

The steam Hammer can be single acting when the hammer is raised by steam and falls by gravity alone; or are double acting when the hammer is raised and forced down by steam.

The smaller hammers have a single frame and the larger hammers, as shown here, have double frames. This photo shows a 2500 lb hammer, i.e. one whose hammer and moving parts attached thereto weigh 2500 lbs.

The hammer is raised and forced down by steam acting on the cylinder above the ram. One of the levers at the side governs the steam supply to the hammer, and the other controls the rapidity and force of the blows. The hammer oscillations synchronize with the controlling lever movements, and an experienced man or boy can regulate the force of the blows with great nicety. I have tried to order one of these babies from the manufacturer...unfortunately they do not seem to respond to my e-mails, and the address I have for them is now a baseball field in Pittsburg.

COMING EVENTS

- Nov 25 2007– VIBA meeting Luxton forge
- Nov 25 2007– Production day demo: Candlestick making
By Willy Tobler immediately after meeting
- Dec 2007– no meeting Merry Christmas
- Jan 27 2008– Annual General Meeting ... election of club
Exec Officers for 2008

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2007 - Executive

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Submissions & Contributions

Submissions to "Forge" can be made at any monthly meeting or by snail mail to:

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President's Report

By: Charlie Dowdeswell



Presidents Report Charlie Dowdeswell October, 2007

With recognition of all members past and present, a very big thank you as VIBA celebrates its **20th anniversary year**

Remembrance Day, November 11, "lest we forget"

Fall - that time of the year that usually seems to have a wee bit of nothing between the summer demos, projects etc. and our settling in for the winter to do what we do.

VIBA's wee bit of nothing this fall includes an exciting development in the shop with the installation of our new side draft forges. As of Monday, November 5, two had already been installed and the other two will be installed as time permits. A few of us who have had the opportunity to use these forges have found them to work like a hot d---. These are great additions to the shop and, as a bonus, give the shop a cleaner,

more open, look.

Along similar lines, I'm looking forward to see what detailed proposal(s) for our shop expansion will be presented at the November meeting. Any proposal(s), of course, would be the first step toward additions and improvements to our shop that will include a better office area, a 'clean' area for project displays and more efficient use of space that will include demonstration areas, a separated welding booth and so on. Like they say, whoever *they* may be, the times is a changin', and it looks as if all of our changes are positive ones.

And just a reminder, you may wish to bring a lunch, as a demonstration by Willie will follow the November meeting which will round out a great day. See you all on the 25th.
Take care
Charlie

Secretary's Report

By: Charlie Low



Viba minutes Oct 28 '07

The meeting was called to order by President Charlie a bit later than the official 11.00 starting time, as we had to admire the swages, cones, and other tools that Neil had laid out in his Volkswagen. Show and tell: Ray brought a clipping from the Toronto Star about "Wrought Iron with a twist"

Neil brought a Damascus knife made by Al Bakke made from weeder blade and nickel wire, with a buffalo horn handle; a calibrated, handled disc measuring implement, which works as a 6 inch ruler, and a larger ruler obviously meant to be used by or on tree munching birds, called a pecker checker, and photos taken by Evelyn Tobler, celebrating Jim Montgomery.

We took some time out to talk of Jim. He got the card we sent last month and was touched. He only lived 52 years and 10 days, and could not read or write until about his last 10 years, and even then found it heavy going. However, he was a master of the practical. For instance, he invented a way to use the last bit of roll end in the rolls of paper on which printing was done, which resulted in considerable savings to the printing industry. He spent some time installing this invention all over England. When he took up black powder shooting, he could not afford the equipment. Alec Scott taught him to make the things he needed. On occasion, he was down on his luck and ate at the soup kitchen, where meals, though cheap, still had to be paid for. He made a habit of paying not only for himself, but for the next several people in line, simply for the pleasure of doing good for folks who needed help. He loved playing pranks on people, and enjoyed, or at least, tolerated, them being played on himself. One sister tells of how, after he and a friend had painted a house, they got up on the roof, and collaborated in getting her with a bucket of water. Another sister tells of how when she and a friend were playing in the water from a fire hydrant, when the little friend would not keep back, in spite of being told several times, Jim picked her up, drenched her thoroughly in the water, and convinced her that standing well back was a good idea.

Among the demonstration items we display at fairs, he made the sequences showing how to make tongs, the pineapple twist and the ram's head. It was due to his efforts that we do demonstrations at the Coombs fair, and at this most recent one, he arranged for the money we are paid for the service to be increased. Several people mentioned his salesmanship at the fairs, pulling people in to our demonstrations and keeping their attention riveted. Skip told of his trick at the Metis Rendezvous, where he held up a piece of hot steel, and shouted, "Give me a dollar and I will lick it"- and when he was given dollars, he would lick them and put them in his pocket.

Neil mentioned one of the tests at the fall Northwest Blacksmiths Assoc meeting was to "thread the needle". With 18 inches of 1/2 inch round stock, the challenge was to punch a 3/8" hole, draw out the end, and stick it through the hole, in a limited amount of time, and 4 heats. Daryl Nelson waited till near the end of the competition, made the hole, leisurely examined it, to the point where everyone knew he could not finish in time. He then cut off the end, drew it out, drove it through the hole, and when challenged on his method,

pointed out that there was nothing in the rules prohibiting doing it his way- a prime example of thinking outside the box.

Errors or omissions in the minutes- none, as there were no minutes available from the last meeting.

New business: Charlie L moved that we buy one of each of the items Neil had on display for the club. Ray seconded-carried.

Willy mentioned we had just changed an old forge for one of the new ones, and would run it a bit to make sure it was working properly before doing the rest of the substitutions Keith moved that we approve extending the shop. The discussion covered what needed to be done- first, make sure we actually could, then make up, and discuss, some drawings of how it should be done, and only then, proceed with doing it. Mention was made of several reasons for expansion, including safety- crowds of people and hot iron can be dangerous, a clean area for displays, and even sales would be valuable, a shielded booth for welding would be an excellent thing. We can move the outer wall out about 12 feet and still have an 8 foot high wall, with the same slope to the roof. If we move the roof up a few feet, an even larger expansion can be achieved. It was acknowledged that the larger the expansion, the better, as more space is one of those things that is always required. The motion was passed, and Neil volunteered to arrange permission with our landlords. We have been offered delivery of about 20 tons of Quinsam coal. Steve Alder, of the Artifacts Soc, found that they needed some coal for their steam train, and as the truck could haul more than they would need, offered us half, for half the cost. Our cost is estimated at \$2650.00 for 20 tons of greenhouse coal, delivered. We unanimously agreed to accept the offer, after some discussion of the qualities of various types of coal from Quinsam. There was some discussion of moving the current Roberts Bank coal to one side of the bin, so there could be access to both types.

There was discussion of fluxes, with mention of borax dissolved in methyl hydrate, with black hot iron being dipped in the solution, and what happens when red hot iron is used- especially in a plastic bucket. Water, as a solvent could be better- it is at least non-flammable. A mix of boric acid with borax was also discussed.

No reports were available for finances, and there was nothing to report from the library. Neil mentioned he had given small aluminum anvils to the NWBA board members, as a thank-you for their generous support of CanIRON. Charlie mentioned he had a call from Quantlan college, who have about a dozen forges to get rid of, but only to institutions involved in education. We qualify.

Don spoke of the need for production days. It was decided that we would take a couple of hours after meetings in future to do some production, and at the same time, include demos on making things that sell out consistently. Willie will demonstrate candlesticks next month, so bring a lunch and prepare to hang around into the afternoon.

Chas

Willy's Candleholder



Willy Tobler makes these candleholders, and they sell very well at our summer fair circuit. As a modified Production Day event, Willy will be teaching a hands-on demo on how to create these beauties after next month's meeting at Luxton forge. Willy has the technique down to a fine art with specially modified tongs, a special flaring tool, fullering tool etc. Come out to the meeting, then afterward learn to make the tooling and the finished product. All finished pieces will go to the club inventory...but the tooling and knowledge will go home with you. Bring an old or unfinished pair of tongs to the meeting and a guillotine fuller if you have one. These will make fine Christmas presents and you still have lots of time to make as many as you need. If anyone has a similar project suitable for an after-meeting short demo please let me know.

DGG

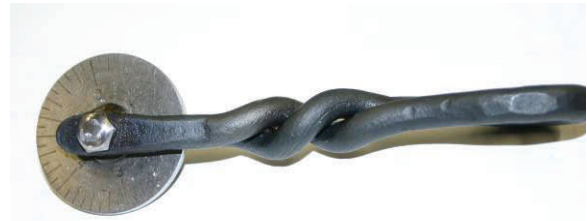
Show and Tell

Photos by D Gillett

Ray brought a newspaper article from the Toronto star about Oleg Shyshkin a blacksmith from the Ukraine



Damascus Knife made by Al Bakke



Wheel ruler by Neil



The Pecker checker...a pipe (or other appendage) ruler by Neil

For Sale

The pictured articles are available for sale by Neil Gustafson. Many pieces are new and here for CanIRON VI or are club members excess equipment used at CanIRON. Prices as indicated. Call Neil at 727-2173



Small swage 20 lb \$110.00, Medium swage 60 lb \$240, swage stakes 6 lb \$35, firepot assemblies (incl firepot, clinker breaker, tuyere and ash dump) \$395, hardie hole cone \$75, floor cone 24" 70 lb \$340, tomahawk drifts \$30
The VW bug they are sitting on is also probably for sale.

Know the real names of your tools?

Source: Practical Blacksmithing Edited by M.T. Richardson Volume 1 published 1889

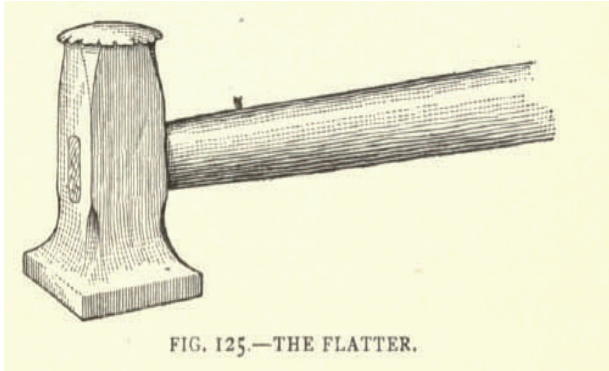


FIG. 125.—THE FLATTER.

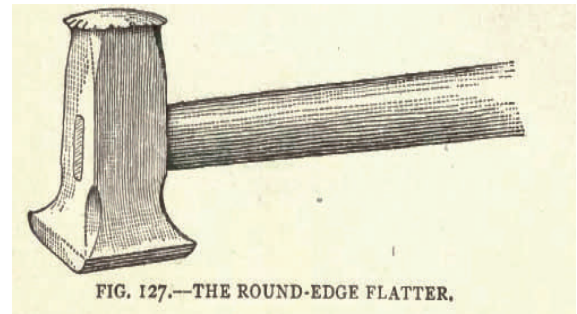


FIG. 127.—THE ROUND-EDGE FLATTER.

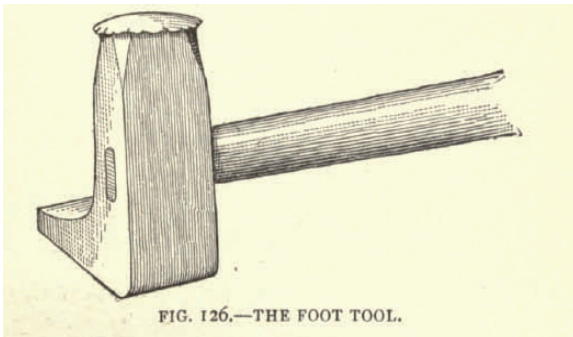


FIG. 126.—THE FOOT TOOL.

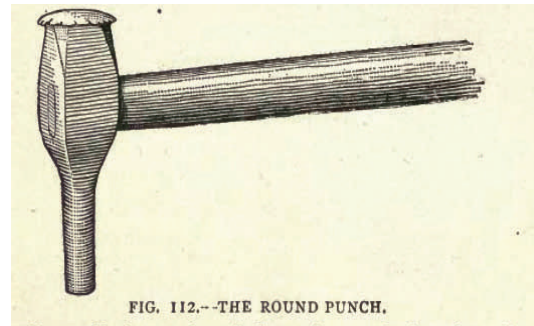


FIG. 112.—THE ROUND PUNCH.

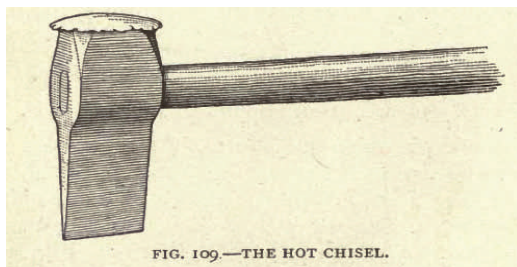


FIG. 109.—THE HOT CHISEL.

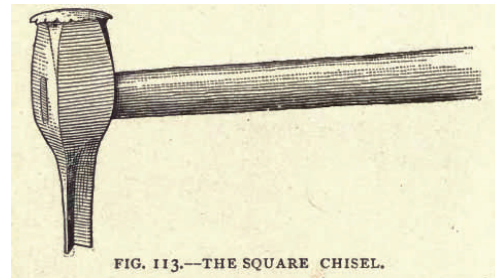


FIG. 113.—THE SQUARE CHISEL.

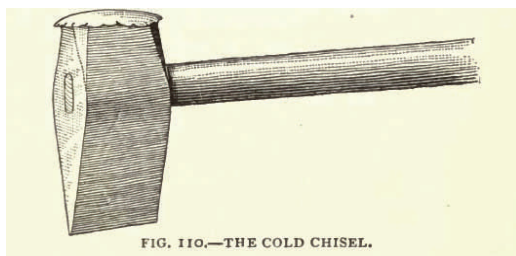


FIG. 110.—THE COLD CHISEL.

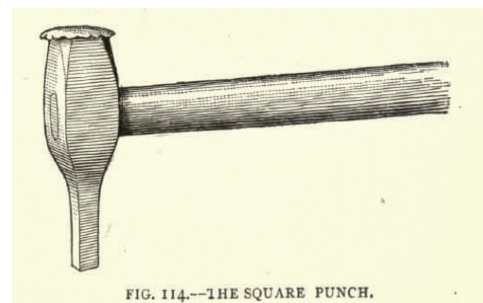


FIG. 114.—THE SQUARE PUNCH.

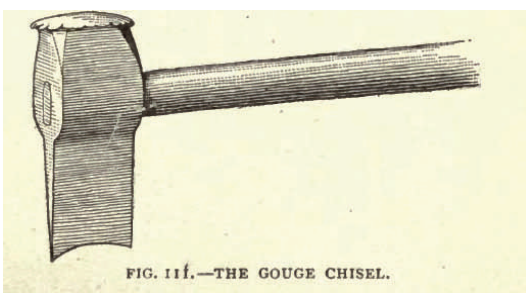


FIG. 111.—THE GOUGE CHISEL.

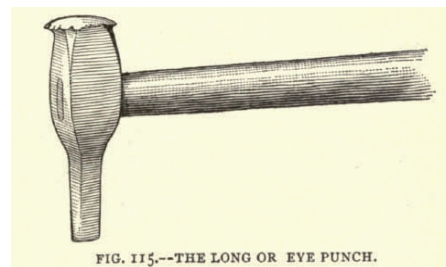


FIG. 115.—THE LONG OR EYE PUNCH.

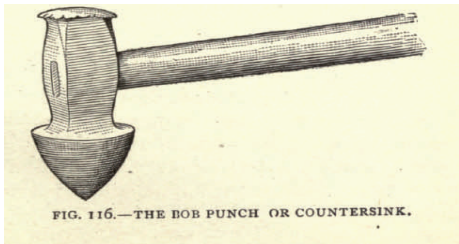


FIG. 116.—THE BOB PUNCH OR COUNTERSINK.

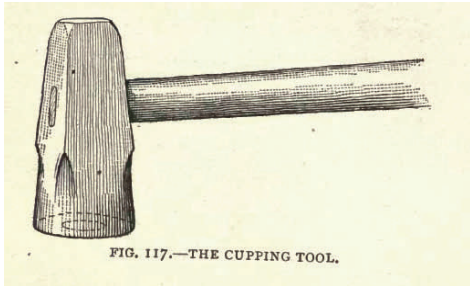


FIG. 117.—THE CUPPING TOOL.

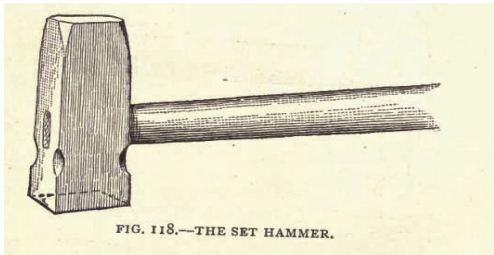


FIG. 118.—THE SET HAMMER.

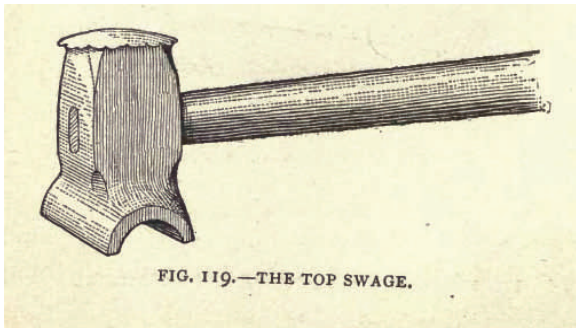


FIG. 119.—THE TOP SWAGE.

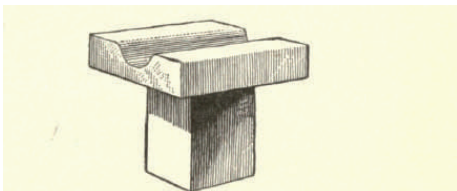


FIG. 120.—THE BOTTOM SWAGE.

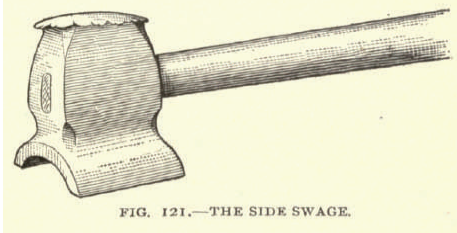


FIG. 121.—THE SIDE SWAGE.

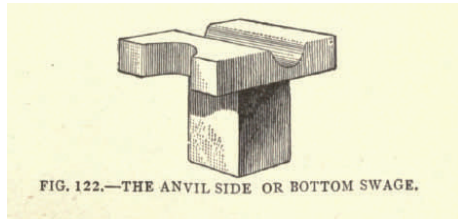


FIG. 122.—THE ANVIL SIDE OR BOTTOM SWAGE.

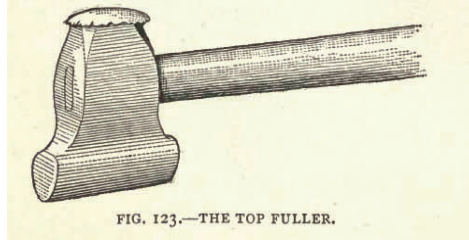


FIG. 123.—THE TOP FULLER.

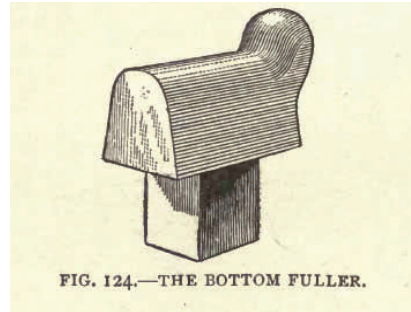


FIG. 124.—THE BOTTOM FULLER.

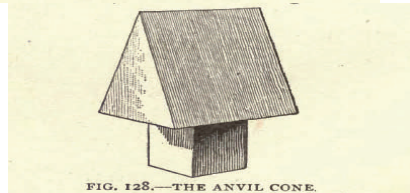


FIG. 128.—THE ANVIL CONE.

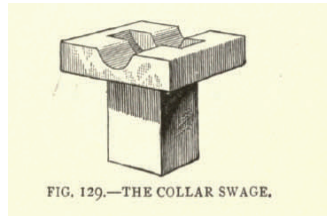


FIG. 129.—THE COLLAR SWAGE.

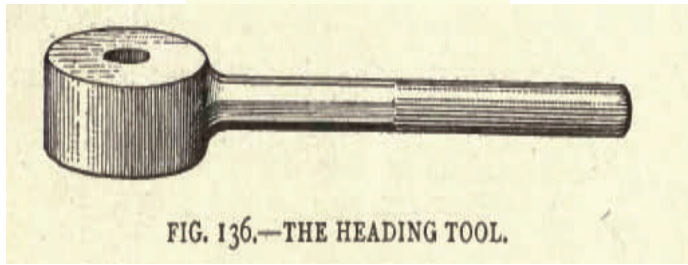


FIG. 136.—THE HEADING TOOL.



FIG. 137.—A NUT MANDREL.

REPRINTED FROM THE MARCH/APRIL 2007 CALIFORNIA BLACKSMITH NEWSLETTER

My Vises

by Hardie Swage (aka Ike Bay, President of The Fort Vancouver Trades Guild)

As my skills and knowledge grow there seems to be a compelling desire to revisit old projects and do them again in a better manner. So adding a new leg vise to my shop gave reason to revisit the others for an upgrade.

My vises are mounted to benches, and the benches are nailed to the wall. The two main vises are elbow-high for general cold work, like filing, but I have done a fair amount of hot work on them as well. The problem with hot work is that I often work from an uncomfortable position; with my elbows up and out, I take on the demeanor of a large awkward bird trying to take flight. For years I have wanted to add a *low* vise to my setup.

For hot work and other applications, the *low* vise is 3" or 4" higher than my anvil and lets me get on top of anything I am trying to do. The bench it is mounted on is also lower. Planishing ladle bowls with the planishing stake in the low vise is a vast improvement. How do I know? My arms, back and shoulders tell me so! I cleaned up several old vises as I considered candidates for the *low* vise. Once a selection was made, it was time to correct as many faults as possible before installation. These tips are a culmination of my study and reconditioning of post vises over the last few months, with advice from others.

My leg vises have a bracket that is bolted to the bench that holds the end of the long leg. In a standard installation I position the vise and then build the foot

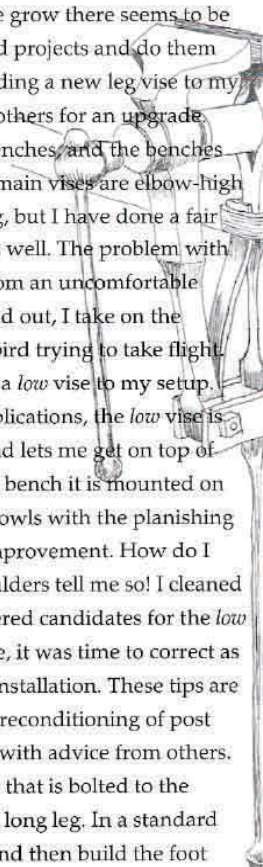
bracket to meet the needs of the installation. I move the end of the long leg in and out until the jaw face is vertical (90°) to the bench. Clamp a straight bar section vertically in the vise for a sighting aid. The leg end is moved left/right until the jaw top is parallel to the bench. These two *settings* tell me where the hole should go on my leg bracket. The *low* vise has a half-round bracket that pinches the vise leg to the bench leg. Some day one of your grandkids will buy this vise and wonder how it got all bent up, they may never understand that it was done deliberately. I buried the leg in my gravel floor. Cutting the leg shorter limits the vise's use in the future.

The vise must be solid. The long leg can be *boxed* into the bench for added support. Two-by material on both sides, butted up close and tight, does wonders. It also widens your bench by 1.5". Benches have even been notched to give the same effect. A vise that moves or wobbles is a deterrent to good work.

Suggested Reading

The Blacksmith's Cookbook, by Whitaker, pages 19, 20, 39.
Restoration of Leg Vises, a four part series by Melchor and Ross, *Anvil Magazine*, Jul, Aug, Sep, Oct, 2001.

Ike sent us this article which appeared in ABANA's Fall 2006 Hammer's Blow. It was good of him to write all this down. For membership information, go to www.abana.org. ~ Ed.



PROBLEM	SOLUTIONS
One jaw lower (A)	Small joint bolt has been substituted and needs to be replaced. Joint bolt needs to be a snug fit and screwed down fairly tight.
One jaw lower (B)	Leg between the jaw and joint is bent. Multi-ton press works wonders and does not take the temper from the hard jaws. Definitely a cold work job. Consider both legs as potential candidates for this treatment. Hot adjustment may add more problems than it solves. <i>Adjustment by grinder</i> is to be avoided if at all possible.
Jaws misaligned left to right	Take a dull red heat on short leg just above joint area. Bolt in place and manually pull to the side until everything is aligned properly. You will be amazed at the light amount of force that is needed moves the jaws.

My Vises

PROBLEM	SOLUTIONS
<p>Retention clamp (collar) not a snug fit (A)</p> <p>* View from the side at eye level and check the slots for matching alignment.</p> <p>* View from the end with one wedge in place to check alignment on that plane.</p> <p>Note: One of mine had each slot dropping in the opposite direction when viewed from the side. This had caused a prior owner to use very thin wedges as compensation.</p>	<p>Remember that most of these are wrought iron and subject to breakage. Sharp inside corners are a danger. Using the long leg of the vise for a form and mashing everything down has to be done with care and caution. If the vise leg has sharp square corners, round them with a file.</p> <p>If slots for the wedges are not aligned on the same plane, adjust clamp while hot using hammer and anvil. This may lead you to making new wedges.</p> <p>When everything fits well, mark the collar and wedges with a center punch so pieces come together the same way every time. The collar needs to be placed with same side up each time, and the reference mark tells you how.</p>
<p>Poor clamp wedges (B)</p>	<p>They need to fill most of the slot. Often you will find them too thin as an accommodation to another problem that was not really addressed.</p> <p>Remember that the rear wedge has ears and pulls the clamp into a snug fit to the mounting bracket. The inside edges of the ears have a slight taper. The clamp slot edges are relieved to accommodate this pulling-in action.</p>
<p>Bar on turn screw bent</p>	<p>Again these may be wrought iron and it is not hard to bend them. Straighten in a vise rather than beating with a hammer. Also a reason to have more than one vise in your shop. Place hot handle horizontally in vise and tighten. Rotate handle and squeeze again, repeat until straight. Reheat and work from other side to get whole handle straight. Best done with a buddy to help! Suggestion: avoid <i>hammer tightening</i> when vise is in use.</p>
<p>Leg below joint bent</p>	<p>Straighten in vise as above. We bent the <i>low</i> vise leg 90° in the vise, a two-person job but very easily done. One person held the work and the other did the vise tightening.</p>
<p>Screw box not smooth or sticks</p>	<p>Clean thoroughly and apply very light oil. Work back and forth to locate any tight spots. Work over screw threads with file to do a <i>light</i> dressing, if necessary.</p>
<p>Poor spring pressure on short leg</p>	<p>If there is no binding in the joint, you may need to bend the spring to give greater tension. Work above red and air cool. No heat-treating necessary. Spring end should have a "foot" with wings on both sides to keep the spring centered on the vise leg. If you need to make a new spring, start with a section of car/ light truck spring and forge as necessary.</p>
<p>Mounting plate is warped, more of a problem with the three-hole cast variety.</p>	<p>Some are cast and adjustment while hot is a risk. We used washers between the plate and bench top as adjustments to fill the gaps and this helped everything sit snug when the bolts were tightened and left the vise level and true.</p>
<p>Vise does not grip tightly.</p>	<p>Vises of this type grip best in the center of the jaws. Jaws tend to grip in a taper when the object is gripped on the outer jaw. Take a dull red heat on short leg just above joint area; closing of jaws with screw box will bring jaws into parallel.</p> <p>Frances Whitaker talks about accessory vise jaws and spacers in his <i>Blacksmith's Cookbook</i>, (pages 19 and 20). Grinding is a last resort, to be avoided whenever possible.</p>
<p>Everything works smoothly and well. It's time to mount on the bench.</p>	<p>Take your time and consider options before you act. To mount a leg vise, I like to use long boards or bars clamped in the vise to let me sight things out. Are the vise jaws parallel to the bench? Is the top line of the jaws level? Is a straight bar clamped vertically in the vise tipping to the front or back? Use a level or eyeball to check. Adjust your installation to correct these problems. Your jaw tops are probably not perfectly flat so this is not a dead on accurate presentation. Just get it as close as possible. If you use a vise stand, most of this still applies. ♣</p>

**Vancouver Island Blacksmith Association
Membership Application**

Name: _____

Address: _____

City: _____ Prov./State: _____

Post/Zip Code: _____

Email: _____

Phone: (____) _____

Fax: (____) _____

Are you a: New Member Renewal

Regular Membership \$30.00 Annually

Contributory Member \$100.00 Annually

Members are required to sign a Liability Waiver
Make cheques or money orders payable to:

**Vancouver Island Blacksmith Assoc. (VIBA)
1040 Marwood Avenue
Victoria, BC CANADA
V9C 3C4**

**Artist Blacksmiths Assoc. of North America
Membership Application**

Name: _____

Address: _____

City: _____ State/Prov.: _____

Zip/Postal Code: _____

Phone: (____) _____

Fax: (____) _____

- Full Time Student.....\$35./year
- Regular Membership.....\$45./year
- Senior Citizen (age 65+).....\$40./year
- Overseas Surface Mail.....\$60./year
- Oversea Air Mail.....\$80./year
- Contributory Membership.....\$100./year
- Public Library Subscription.....\$35./year

Credit Card Payment

Card No. _____

Visa Mastercard

Expiry Date: _____

Signature: _____

by Phone: (706) 310-1030

by Fax: (706) 769-7147

Mail: ABANA, P.O. Box 816,
Farmington, GA, USA. 306380816

For Sale continued from page 5



Used coal forge and firepot
with electric blower



Utility rack/stand



4" and 5" leg vice with
stand

Negotiate price with Neil for
these items