



FORGE

Dedicated to the revival of the King of Crafts



Venus at Vulcan's Forge Floris, Frans 1560

Above is a painting of Aphrodite (Venus Goddess of love) with her husband Hephaestus (also known as Vulcan) the Greek God of fire and blacksmith for the immortals. Move out of the way vampire love stories, yes you twilight. This blacksmith love story fits to well for this month of love.

Click on blue text to read stories below.

[Translated story from Homers odyssey.](#)

[Moderen translated story.](#)

Current Events:

Monthly meeting Sunday,
March 27, 2016 @ 11:00 AM
Blacksmith Course

March 12, 19, 2016, then on
April 2, 9, 16, 23, 30 and
May 7, 2016 from 8:30 am
to 5:00 pm

2016 Executive

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Gustafson

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Secretary's Report

By: Charlie Low

January 2016

Show and Tell:

Brendan brought in a rose, Dan brought a frame to hold 3 pictures, or as presented, 3 pieces of plywood, a babbitt bearing scraper, an interesting old clamp, with steel jaws and wrought frame, and a rivet sampler. Dee brought a pair of tongs, Mika a hot cut, Fraser a horseshoe heart hook, Willy brought in a rack of hooks, just right to hang up a whole batch of keys or necklaces, and Neil brought a variety of magazines.

Financial:

As usual, we are nicely solvent, and with a lot of people paying their annual dues, even more so than usual.

New Members: John Cassells, and visitor Nick Foster

Old business:

John has 8 poppies completed, and will mail them to England sometime soon. If you have some that you would like included, get in touch with him.

Thanks to Brody for taking on the newsletter.

Coal: there was an opinion expressed that we have enough coal left for a year, or a bit less. Dan is working on contacts, but is finding it difficult to get anything actually happening.

New Business: Caniron. Neil and Dan went over to Quantlam College and talked to several people who are in positions to make decisions, and who are enthusiastic. They talked to Gerard Laverty, visited the welding shop and farrier shop. There are lots of forges, huge amounts of space and pretty much everything a smith could dream about, and all inside. The gallery can be set up in the foyer with lots of large windows to show stuff off, not only to visitors, but to anyone passing by. There are some technical details to be worked out about exactly when to stage the event, as the college is not normally open Sundays and holidays, though for a fee, it can be opened- which makes the first of July weekend awkward, but as the college does not run in July and August, we can do it any old time. The heavy power supply is 440, and most big things like power hammers run on 220, but arrangements can be made. There are classrooms, 2 boardrooms, a big cafeteria, and the staff of the cafeteria may well be interested in doing the catering. There are parking lots for car camping, and commercial accommodation quite nearby. There is also the Burnaby Village museum, which gives blacksmithing classes, and may be interested in being associated with the event. We will need a committee to start putting the thing together. Dan, and Brody volunteered, Charlie L agreed to be of some use, but we will need a few more volunteers as coordinators, and whole bunch of worker bees.

We need suggestions as to who should be asked to demonstrate. Doug Newell, Uri Hoffi, John Adolf, Hank McEwan, and a couple of Israeli guys who work for the Big Blue power hammer company were all mentioned.



Have something you would like added to the newsletter Email it.

Arcingbrody@gmail.com

The list of things to make for the fairs was mentioned. It should be posted on the website, and I would like to see a hard copy stuck up on the wall in the shop. George is believed to have a master list and can be asked to post it as an excel spreadsheet.

Jake James will do a demo some time. Neil will organize it.

We have a lot of propane tanks stacked around the back of the shop, which do not appear to have owners. If you are the owner of any of the tanks, and want to keep it, it would be a good idea to put your name on it/them, so they don't go to scrap, especially if they are not date-expired. There are also a number of jackets in the shop that don't seem to have homes to go to. It was suggested that we keep some of the better wool ones, but the polyester ones could be used for starting fires.

The cubby-holes could use some attention. There is a lot of stuff packed into them that has not moved in a lot of years, and it was suggested that a thorough cleaning out would make them more useful to current members. If you are claiming a cubby hole, it would be a good idea to put your name on it, and a date, so we know that this one is not a relic of bygone days.

We could use a supply of newspapers - does anyone else have a subscription to the TC? The blacksmith course will happen Saturday Mar 12, 19, Apr 2, 9, 16, 23, 30 and May 7.

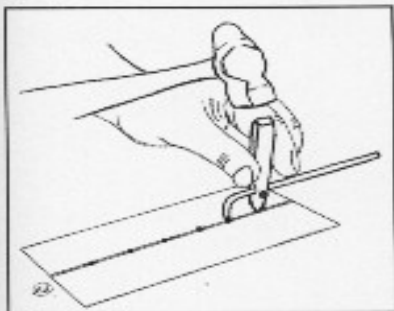
The NWBA conference will be May 13 to 15 in Longview WA, and the ABANA conference will be July 13 to 16 in Salt Lake City.

Fraser has sanding belts for the shop belt sander, with Brody helping with the sales. Considering the condition of the resident shop belts, it is a good idea to buy your own and keep them by your side.

Self-Measuring Center Punch

by Tommy Ward, Mississippi Forge Council, *The Upset*, April 2006

From time to time I've had to drill a succession of equally and accurately spaced holes. Although laying out the hole spacing can be done fairly quickly using a transfer compass, the positioning of the compass points,



scribe marks and, ultimately, the point of the center punch itself, each present the opportunity for a slight error. Over a series of holes, several small errors can stack up, resulting in a significant overall change in dimension.

The solution to the problem is a self-measuring center punch, which is neither new nor original. I first recall seeing one many years ago in an old metal trades manual.

A standard center punch can easily be fashioned into a self-measuring type by drilling a perpendicular hole

through its shank to receive a lateral locating rod. A point is sharpened on one end of a small diameter rod (I used $\frac{3}{16}$ " piano wire) and the sharpened end is bent 90° to form the locating leg. Cross-drill and tap the punch shank to accept a setscrew which will be used to lock the adjustment of the locating leg. Although punches are generally regarded as being made of fairly tough steel, I had no trouble drilling a pilot hole through mine with a $\frac{1}{8}$ " diameter tin-coated bit running at 1500 RPM and using a coolant. The dimensions of things are not critical, but care should be taken to insure that the lengths from the cross arm to the tips of the punch and locating leg are identical.

To use the device, set the desired distance between the tip of the punch and the locating leg. Lay out a longitudinal reference line on the work, and punch the location of the first hole. Then place the point of the locating leg in the first mark, and punch a second mark on the reference line. As the locating point is placed in each successive punch mark, a new mark is punched on the reference line. Continue the sequence as needed. ♣



Rose by Brendan



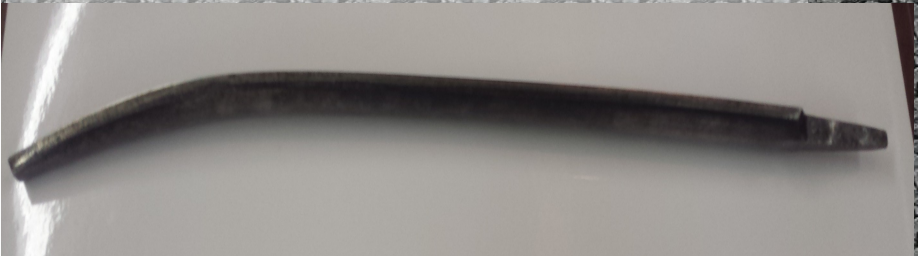
Horseshoe heart by Fraser



Dan brought in 3 piece photo frame



Hotcutter by Mika



Dan brought in Babbitt bearing scrapper



Dan brought in hand made clamp

THE REBUILDING OF A PORTABLE LEVER FORGE

By anonymous VIBA member

A lever-operated forge has been sought for the past year for demonstration purposes at the Craigflower Manor Forge. This type of blower requires more maintenance than a crank operated blower. The lever mechanism is also a far less efficient way to operate a blower as the lever only actually operates the blower on the down stroke. However, I believe the lever mechanism holds a great attraction for spectators at demonstrations.



They like to see the lever being pumped like bellows were in the past. When the lever is pumped, a curved pivoting rack is moved up and down which engages a pinion on the pinion shaft...this shaft contains a pawl and ratchet clutch with simple pawls engaging ratchets inside a drive hub which transmits power to the flywheel. The flywheel drives a leather belt that in turn drives a small pulley on the fan shaft, spinning the fan.



This is a photograph of the forge as purchased. The main problem was a large section of the cast iron pan wall was missing, having been broken away some time ago. The missing section was not available for either a brazing or welding repair. Other less difficult problems were also apparent.



The fan would need replacing in its housing, the drive belt was missing, the windscreen was missing, the circular leg brace needed replacing, the tuyere grate needed replacing, the flywheel was not secured on the pinion shaft, the pawls in the pawl and ratchet clutch were not engaging the drive hub because of hardened grease, and the wooden operating lever was rotten and needed replacing.

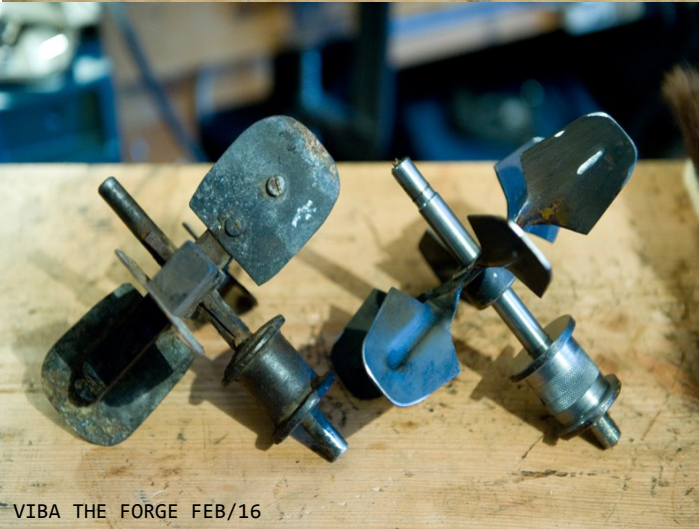
During disassembly most of the fastenings had to be cut off so they were all replaced with black unplated nuts and bolts in keeping with the period.



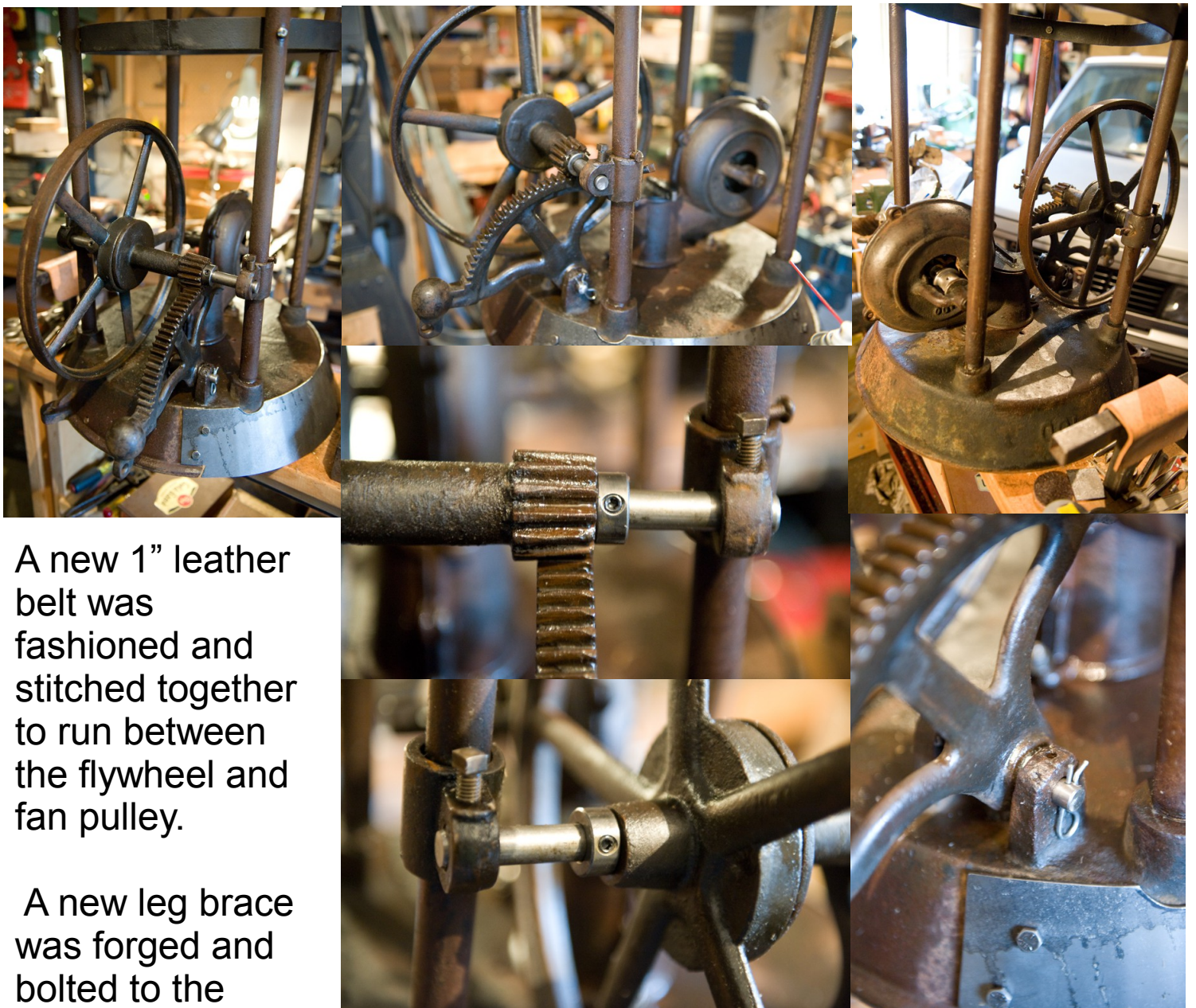
A cardboard pattern was made as a guide for the pan repair. A 1/8" mild steel plate was shaped and bent and attached to the cast iron pan with four bolts. Rivets would have been perfect appearance wise, but we didn't think the old pan would stand up to setting the rivets. A thinner 20 gauge patch was fashioned for the inside of the pan-both for appearances sake and to help keep the fire where it belongs.



The blower housing was opened up allowing access to the fan, shaft, and pulley. The fan had been replaced sometime in the past with a homemade contraption consisting of a wooden crossed frame made with a half-lap joint with four galvanized pieces of tin screwed to it. A fan was salvaged from a donor blower to replace it and reshaped to fit the housing. It was fitted to a newly fabricated shaft and pulley and everything was reassembled into the old blower housing.



Attention was then turned to the pinion shaft. A new shaft was fashioned from 5/8" cold rolled rod and shaft collars were installed to keep everything in alignment...a vast improvement over the large loose nuts(spacers) and washers that wobbled around on the original shaft. The pawl and ratchet clutch was disassembled and cleaned of all grease and obstructions. For this type of clutch to work properly, the three internal pawls must drop freely onto the ratchet (teeth) of the drive wheel without grease impeding them. A good cleaning and final flush with WD40 had everything working again.



A new 1" leather belt was fashioned and stitched together to run between the flywheel and fan pulley.

A new leg brace was forged and bolted to the legs.



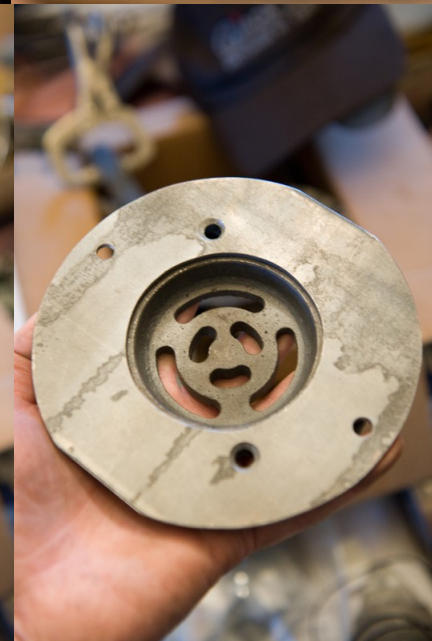
A new wood lever was made using the original for a pattern. Three 1/8" steel wear plates will be attached to the new lever. A new link was forged out of 3/8" rod to attach the lever to the curved pivoting rack, and a new 1/2" shaft was made for that rack.





A windscreen was designed and fashioned from 20 gauge steel and reinforced with a bar of 1/8" by 1 1/2" hot rolled. This attaches to the pan with two small brackets using wing nuts for easy removal during transportation.

The tuyere grate was replaced....unfortunately one of the correct size was unable to be sourced and a smaller one had to be used. The bolt holes in the new grate couldn't be used to attach it directly to the pan because they interfered with the tuyere housing so an adapter plate was made that fit the original pan holes and the new grate was bolted to it.



The pan was lined with Rutland Castable Refractory Cement to protect the old cast iron from thermal shock. This was probably unnecessary but it was done since it had already suffered breakage and a crack. It added about ten pounds to the weight of the forge.



Hopefully we have given new life to this handsome little forge and it will enthrall the adoring public for years to come. Total cost about \$250 including the initial purchase price.



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CONFERENCE



**2016 ABANA
CONFERENCE**

JULY 13-16

education



abana.org/2016SLC

Vancouver Island Blacksmith Association Membership Application

Name: _____

Address: _____

City: _____ Prov/State: _____

Post/Zip Code: _____

E-Mail: _____

Phone: (____) _____

Regular Membership.....\$50/year

Members are required to sign a liability waiver. Make cheques and money orders payable to:

Vancouver Island Blacksmith Assoc.
1040 Marwood Avenue
Victoria, BC, Canada.

Artist Blacksmith Assoc. of North America Membership Application

Name: _____

Address: _____

City: _____ Prov/State: _____

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Full Time Student.....\$45/year

Regular Membership.....\$55/year

Senior Citizen (Age 65+) ...\$50/year

Overseas Surface Mail\$60/year

Overseas Air Mail\$80/year

Contributory Membership....\$150/year

Educational Institution membership
\$250/year

Credit Card Payment.

Card No. _____

Visa Mastercard

Expiry Date: _____

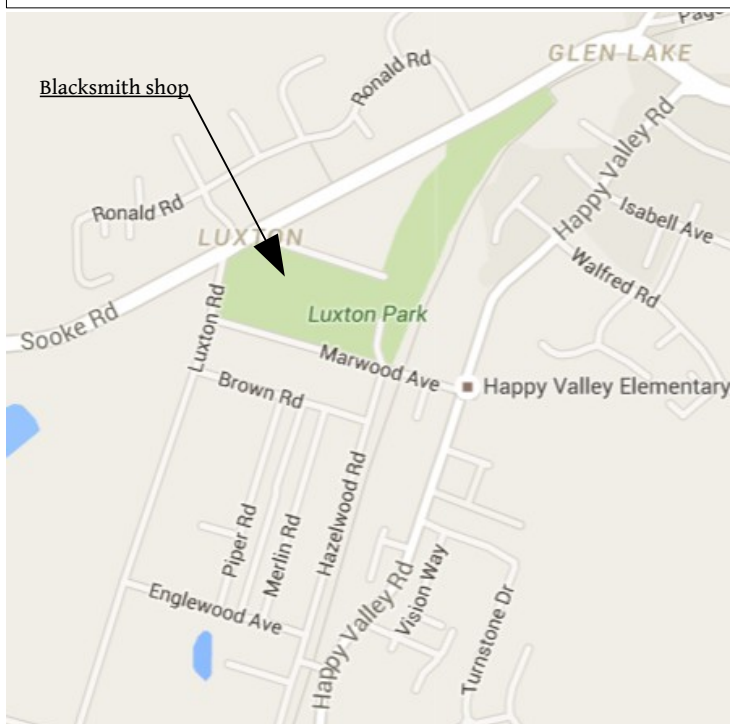
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