The Care and Feeding of Your Coal Forge Fire

Building Your Fire - The fire pot is full of cold coal/ coke and clinker-ash. Some smiths dig out the firepot and this material will be on the brick surface. To start a fire, first rake out the fire bowl, pushing all coal and coke back on the hearth and throwing out all clinkers. Clinkers are heavy and metallic, having sharp, hard corners or projections, and are a very different color and are therefore easily distinguished from the coal/coke which is black. Fine cinders and ashes are easily shaken through the tuyere into the ash pit or screened with the screen that is hanging in the SE corner of the shop.

After cleaning the fire pot, dump the contents from the tuyere/ash pit by via the cover on the bottom. Try the blower and make sure a good strong blast comes through. Sometimes ashes work back into the blower pipe and obstruct the blast. Now light a wood fire using newspaper from the box in the NE corner and/or shavings and kindling from the box next to the east door.

If there are visitors present as you are starting your fire, consider using flint and steel to start your fire. It makes for a good show.

Gently pump the bellows; rake fuel, left from the previous fire, onto the burning kindling. Keep flame coming out the top of your fire. The flame will burn off the smoke keeping the air in the shop and in the fort cleaner. Once the fire is burning well, rake more fuel onto it, and bank the fire on both sides and on the back with dampened coal. This forms a valley with burning coke at the center, and the heat is concentrated in the center by the dampened coal on the outside. In a little while this dampened coal, sometimes called green coal, has gases driven off and it changes to coke.

Maintaining Your Fire - As your fuel burns up push fuel in from the sides. Add new fuel to the outside and wet down. Do not continually poke at the fire; simply keep the center well supplied with coke and the outside packed down with dampened coal. If the fire tends to spread too much or becomes open and loose, throw or sprinkle water on the edges and pack it down with the shovel. Let the bellows work.

Welcome to the new, but not necessarily improved, version of the Fort Vancouver Trades Guild Newsletter.

The goal of this newsletter is to keep guild members informed on the goings on at the fort, techniques of the historic smiths and carpenters, as well as news about our fellow guild members. Please send me ideas about any of the above that you would like to see in your newsletter.

Craig Webster
Newsletter Editor
**Controlled Hand Forging Lessons**

**Forging Fundamentals**

Excerpted from a story by Dan Nauman and the Educational Programs Committee

Before one ventures into hot forging, it is important to consider safety, shop layout, and use of tools. We offer these thoughts as suggestions, and do not claim that all rules pertain to all people, as people come in all shapes, sizes, and with varying opinions. We are offering these ideas from experience, as well as common sense. They are a place to begin.

We begin with safety. Protective measures should be taken to prevent burns. Your clothing should not be synthetic, and this includes your shoes. Most synthetics catch fire easily, and often melt right on the skin causing an even worse burn. Preferably, wear heavy-weave cotton or wool clothing, and leather work boots. Do not have cuffs in your pants, as they can catch hot coals. Your pants should cover the top of your boots to prevent coals or molten flux from entering. Some smiths prefer to wear a leather apron to prevent sparks and molten flux from burning their clothes. If you are wearing fort provided clothing, do not let Eileen catch you forging without an apron. It is not a pretty sight.

Provided clothing, do not let Eileen catch you forging without an apron. It is not a pretty sight.

Considering safety, shop layout, and use of tools. We offer these thoughts as suggestions, and do not claim that these thoughts are the only acceptable.

Ear protection will cut the noise of the anvil’s ring and provide more velocity, thus more impact. One rule of thumb suggests that a proper handle length for you is 12:00. The proper grip can help avoid the above-mentioned ailments.

Some smiths prefer a short handle on their hammer. While we do not condemn this practice, we must note that to achieve a heavier blow, either a heavier hammer head or heavier blows must be used with this shorter handle. Plus, when working larger bars, the hand is more susceptible to the intense heat radiating from the bar. A longer handle when held at the end will provide more velocity, thus more impact. One rule of thumb suggests that a proper handle length for you is to outstretch your hand with the elbow at 90 degrees. Balance the hammer head at the end of your fingers. The handle length should equal the distance from the bottom of the hammer head to the inside of your elbow.

Force = mass x velocity. A light hammer with a long handle can provide all the needed force one needs to forge. The added bonus is continued accuracy. A hammer that is too heavy can tire one out rapidly, thus making blows erratic. Ultimately, the weight is a matter of preference. A hammer which can comfortably be used all day is best for you. Likely, this will be 1.8 pounds to 2.25 pounds. Advanced smiths have a range of hammers with various weights for various work. Not all work requires the same weight hammer. Ailments from too heavy a hammer include carpal tunnel syndrome, tendinitis in the wrist, elbow and shoulder, damaged cartilage, and torn ligaments. Gripping the hammer properly is also important. Although there are several ways to grip a hammer, it is widely accepted that placing one’s thumb on top, or in line with the hammer handle, can lead to injury of the thumb and wrist joints. Wrapping the thumb around the handle is considered to be a better method of holding the hammer. Some smiths prefer to hold the thumb at a slight angle (about 10:00 to 11:00), with a somewhat relaxed grip. This is still better than straight up at 12:00. The proper grip can help avoid the above-mentioned ailments.

Some smiths prefer a short handle on their hammer. While we do not condemn this practice, we must note that to achieve a heavier blow, either a heavier hammer head or heavier blows must be used with this shorter handle. Plus, when working larger bars, the hand is more susceptible to the intense heat radiating from the bar. A longer handle when held at the end will provide more velocity, thus more impact. One rule of thumb suggests that a proper handle length for you is to outstretch your hand with the elbow at 90 degrees. Balance the hammer head at the end of your fingers. The handle length should equal the distance from the bottom of the hammer head to the inside of your elbow.

The handle can be customized to fit your hand by rasping. Many smiths like a handle pared down so that when gripped, their two middle fingers just touch the fat part of their thumb. Some smiths trim down the first 3”-4” beneath the hammer head to provide some flex to the handle, which absorbs some shock from the impact.

Feel free to modify your own hammers in any way you wish, but check with Mike Twist before making any modifications to a fort owned hammer or top tool.

Do not clutter the forge hearth with tools. That being said, clutter is defined differently by different people. As a rule of thumb, if you cannot quickly put your hand on the different tools you are using, your hearth is cluttered.

Fluxes of any kind can be a health hazard when used incorrectly. Many fluxes contain materials like borax, and silica, which when inhaled repeatedly can cause chronic health problems. Use fluxes in well-ventilated areas.

A glove can be helpful when performing close work, such as chiseling or chasing, on hot bars. However, a glove can be a hindrance when manipulating tongs or the hammer. A glove can be a false sense of security as well. A more severe burn can occur from a burning glove, or from picking up a hot bar with a wet glove. Stand almost erect when forging at the anvil. If your hat falls off you are stooping too far over the anvil. This might mean that your anvil is too low. Stooping will also lead to a bad back. It also puts your head in the way of a rebounding hammer from the anvil after a missed blow. Keep a comfortable close distance from the anvil.

Swing your hammer down, not out.

A cluttered shop is a dangerous shop. Keep unused tools in their place. Place hot bars in a protected place to cool; under or on top of the forge hearth, but not in the open work space. Bar cut-offs should be picked up, especially round bars which can cause an easy fall to the floor.

The anvil is not a table, and should only hold tools used for the work at hand. Light levels in the shop should be bright enough to perform all facets of the trade whether it be hot forging or cold work. Having a vise or workbench at a window can make use of natural light. Brighter light can be switched on at the workbench for close work such as filing, chasing or repousse.

Heeding these suggestions can make your forging efficient, less dangerous, and more enjoyable. In the long run, they may provide you with less wear and tear on your body.

The London Anvil

(Peter Wright, 100 lbs)

Information Source: Alar W. Bealer, The Art of Blacksmithing
The Fort Vancouver Garden past and present

The Fur Trade was, of course, the original impetus for the coming of Europeans into the Pacific NW. However, within a decade of the founding of Fort Vancouver, it was already in decline, and its importance was soon overtaken by the rapid growth of what proved to be the HBC’s “enduring legacy”: European agriculture in all its forms, including livestock, field crops, fruits, and gardening.

Even before their arrival, the HBC knew that even as one era was ending, a new one was beginning. The hunting-and-gathering way of life that had sustained the local peoples since time immemorial, would not be sufficient to support the fur trade, meaning not just the trappers but also the whole support system, including the HBC’s trans-oceanic shipping network – plus ships of the Royal Navy, English explorers, Russian fur traders. Everyone needed food – English food – and the Garden has been maintained entirely by volunteers. By that time, the HBC had thousands of livestock – cattle, sheep, pigs and horses – and hundreds of goats, chickens and other poultry. They had thousands of acres of pasture to support them, and 1400 acres under the plow, for field crops. The orchard had grown to five acres and contained about 500 trees; while the garden was now at its peak of 8 acres! Within it grew just about every type of fruit and vegetable that was cultivated in England, plus many types of herbs and flowers. Fort Vancouver had become the main supply point for the British Empire in the Pacific Northwest.

The Interpretive Garden is arguably the oldest historic program at Fort Vancouver.

NHS – began in 1974, when the Fort consisted only of the Stockade and the Bastion. At that time the vegetable garden was a long, narrow strip of land along the west side of the main path to the North Gate, while a wider strip along the east side, was used for field crops like wheat. Two years later, the entire program was consolidated into the space on the east side - with the Garden located in the southern half (where it is today), and the field crops in the northern half. For its first fifteen years, the Garden was a fairly rustic place, with a small variety of fruits and vegetables and no permanent ‘hardscape’ (internal pathways). In 1988, FOVA management decided to re-design the Garden into its current form: a mid-19th century English kitchen garden, with dozens of varieties of fruits, vegetables, herbs, and flowers – as well as amenities like formal flower gardens at the south (and later, the north) end; arbors, for roses and hops; park benches; internal pathways; and even a sundial.

Since about 1978, the garden has been maintained entirely by volunteers – many of whom are Master Gardeners who received their training through the WSU Master Gardener Program. For most of this time the Garden was funded entirely by the NPS – but in the last few years the Garden has been mostly financially self-supporting, via generous grants from the Master Gardener Foundation of Clark County.

The number of plants has grown to include 60 varieties of vegetables; 50 of flowers; 15 of fruits; and 33 heirloom roses. Every effort is made to use only varieties from the historic HBC period. The array of varieties is stunning. The garden today has nine varieties of squash (4 of ‘summer’, 2 of ‘winter’, 3 of pumpkins) and six of tomatoes; five varieties of cucumbers; four kinds of potatoes, corn, and peas; three each of beans and eggplants. ‘Root crops’ include five varieties of beets, four of turnips, three of carrots, two of parsnips and radishes. The Cabbage family is well-represented with four varieties of cabbage, three of kale, two of broccoli; and mustard. Salad greens include three kinds of lettuce, two kinds of celery, and sorrel. There are onions, leeks, and chives; muskmelons and watermelons. Plus there are ‘field crops’ like oats and buckwheat, sometimes wheat or barley – to represent, in a small way, the valuable ‘cash crops’ of HBC times.

Only organic gardening practices are allowed. This means – among other things – no pesticides or herbicides. Clover and legumes provide nitrogen to the soil; natural compost provides other nutrients and biomass. Companion planting and beneficial insects are used. The produce is used, first and foremost, in the Fort Vancouver Historic Kitchen, for historic cooking demonstrations in the Dame and Young Engaged Schools and other living history programs, including the twice yearly Black-smith events. Excess is given to Vancouver’s Share House - with just a little taken home by the people who grew it - the Garden Volunteers. Much of this returns in the form of pastries, jams, and side dishes, in monthly meetings and Open Garden Days. Some of the Garden Volunteers also work in the Kitchen, linking the two activities together.


Since about 1978, the garden has been maintained entirely by volunteers.

Lizzie Lafayette, Rachel Nickerson, Nancy Funk, and Bonnie Quarto (in the background) prepare bread for a kitchen meal.

A hungry crew of interpreters sit down to another fantastic meal cooked in the Fort Vancouver Historic Kitchen. Marie Ogier is shown discussing garden issues with Head Gardener Nancy Funk as Dame schooler Brittany Noelck looks on.
These tongs are possibly the most universal tongs you can make. They combine the superior holding power of the Patrick Pelgrom Tongs and the light weight and geometry of the Off-Center brand tongs.

In a prior article (see May 2011 IBA Forge Fire newsletter), I showed how to make the very versatile Patrick Pelgrom tongs by re-working existing tongs. Recently, I taught a couple of students how to blacksmith. We decided to make our own tongs, however, I did not have five donor tongs lying around. This meant that we were going to have to start from scratch. I always liked the light weight of the Off-Center brand tongs as well as the fact that you can hold items that have an end on them such as the water lily of figure 2. Hence, I decided to combine the advantages of those two types of tongs and a new kind of tongs was born. After some research, I decided to make the tongs from 36” length of 3/8” round 1045 carbon steel. In this article, you will find construction notes on how to make these tongs. The bit shown on the upper side of figure 1, I will call the “top”.

**Top Bit.** To make the top bit, gradually flatten one end Detail of bits over a length of about 1 ¾”, ending in a ½” wide and 3/16” thick tip, as shown at the bottom of the previous column.

Next, bend this end to a semi-circle of about 3½” diameter. Make a second, fairly tight 100° bend where the reigns begin. Mine ended up with a ½” radius. Use a 1” round punch; flatten the tight bend, the portion that will eventually be punched for the rivet. Flatten it to about half the width of the material, i.e. about 3/16”. Ensure that you flatten a little bit towards the business end of the tongs.

Next punch a ¼” hole for the rivet. You need to make sure that the center of the hole is at least above the inside edge of the reigns; see the dashed line as seen below. Otherwise, the reigns will open up too much when you hang them in-between the reigns.

**Bottom Bit.** The first order to business is to flatten the other end so that you can eventually form the bottom V. Since this requires a good amount of materials, spread the steel with the pein to about ¾” wide and about 1/8” thick. Do this over a length of about 1”. The transition from the 3/8” round stock to the flattened tip is about ¾” long. See below for details.

Next, form a V over a 90° swage block and while you are at it, extend the V by scoring the round portion of the bit; see below for details.

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**Bottom bit bent to shape**

Bend the bottom bit by first bending the V you formed at a fairly tight 100° angle, then bend the next portion to a semi-circle of about 2” diameter. Finish the bending operations by a fairly tight 100° bend where the reigns begin. This last bend should be similar to that of the top bit.

Now is a good time for some file work. The back portion of the bit, i.e. the portion that was merely scored, now needs to be filed to a V. The V has to extend over the entire length of the bottom bit, such as shown here.

The bottom bit needs to have just two contact points, one on each end. In other words, it needs to be slightly concave. This way, with the top bit meeting up in the center of the lower bit, you have just three contact points, ensuring a tight grip.

The next couple of operations are the same as for the top bit: flatten the bend, slit and punch a hole for the rivet and drill it to size. Next, cut the forged piece in the center between the two rivet holes and draw out the reigns to your preferred length and shape. For your reference, mine ended up 13” long, as measured from the rivet hole.

**Assembly.** Using a ¼” rivet, dry-fit the tongs and based on it, ensure that the two bits line-up. Next, cut the tip of the top bit to size and file a V notch into it. See figure 3 for details. Punch a ¼” hole in a small piece of cereal box cardboard, heat the rivet and assemble the tongs, placing the piece of cardboard in between them. Once the rivet is set, burn away the cardboard and gently tighten up the rivet as needed.

**Usefulness of tongs**

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**Usefulness of tongs**
Fort Facts

How much of what you know is right?

By Tom Holloway
Fort Vancouver Volunteer Carpenter

One of the questions I get now and then from visitors to Fort Vancouver is some version of “how much was a beaver pelt worth?” This is even more important if we consider that in trade with natives and trappers a common unit of value within the HBC trading network was the “made beaver” meaning the value of a prime adult beaver pelt ready for market. It might seem strange given the importance of beaver pelts in the whole HBC story, but the answer is harder to find, and more difficult to understand in modern terms, than we might think. It involves, first, what monetary value might have been put on beaver pelts in British currency, and how such a number changed over the two centuries from 1670 to 1870 when HBC’s main focus was the fur trade. There was also change from place to place: We can’t assume that a pelt turned into York Factory on Hudson’s Bay was given the same value as a similar beaver skin traded at Fort Vancouver. Once we have a figure in British currency, most of us would like to have that converted into U.S. dollars. Since the old adage that “a dollar isn’t worth what it used to be” is all too true, we would also like to know the rough equivalent of the dollar now. People who brought furs to HBC often received trade goods in return rather than currency, so it would also be useful to know how much those goods cost the Company to acquire. And this is all at the first level of getting furs from those who trapped them, not considering how much HBC received for each pelt in the wholesale fur markets of London or New York. The difference between what they paid out to acquire a fur, and what they received when they sold that fur to the next link in the chain that eventually resulted in a felt hat, minus their operating expenses, determined HBC’s profits. I wouldn’t string you along this far without providing at least a start at an answer. To do that I need to give a little background on my source: William A. Slacum. Slacum was a purser in the U.S. Navy whose trip to the Pacific Northwest was commissioned by President Andrew Jackson. For his travels he adopted a civilian persona and the profession of trader, either to help pay for the trip, or as cover to its true purpose of reconnaissance ordered by the US government, or both. After traveling across Mexico he made it to Hawaii where he hired a ship, the “Loriot” with its crew, purchased enough supplies to appear to be a trader, sailed for the Columbia River, and stayed in this area from late December 1836 to early February 1837. Slacum’s report was published as John Forsyth and William A. Slacum, “Slacum’s Report on Oregon, 1836-7,” Oregon Historical Society Quarterly, Vol. 13, No. 2 (June 1912), pp. 175-224.

Here is a passage from page 191:

“The price of a beaver skin in the Columbia district is ten shillings, $2, payable in goods at 50 per cent on the invoice cost. Each skin averages one and a half, and is worth in New York or London $5 per pound; value $7.50. The beaver skin is the circulating medium of the country.”

Lots of stuff in these few lines: 1) The “made beaver” functioned as a sort of currency. 2) The value of a made beaver in the Columbia District in 1837 was 10 shillings, or half of one British Pound. 3) The exchange rate with the U.S. dollar was 5 shillings to the dollar, or one £= $4.00. 4) Once the furs reached the wholesale fur markets of New York or London they were measured in bulk by weight, not by the individual pelt. 5) A pelt that cost HBC $2 at Fort Vancouver would bring something like $7.50 on the wholesale fur market. Finally, 6) Slacum mentions the important detail that the value of the goods the Company exchanged to obtain the fur was calculated at what HBC paid for those goods, plus a 50% markup. For example, let’s say a trapper wanted a point blanket. He brought in a prime beaver pelt, worth 10 shillings. The trader said “You’re in luck. This 3-point blanket is worth 10 shillings, exactly the value of your pelt.” But the Company paid just 6 shillings 8 pence for that blanket, and added 30% on its cost to come up with the 10 shillings trade value. HBC made money at both ends—on the trade by which it acquired pelts, and on the sale of those pelts to the brokers who sold them to the hat makers.

So how much would $2 in 1837 be worth today? There are inflation calculators online to do the heavy lifting here. My favorite is Measuring Worth because it explains how the various results are derived, and gives some hints on how to interpret them. (It also provides historical conversion rates from British £ to American $.) Long story short, the $2 value of a beaver pelt of 1837 would be something like $48 today. And the $7.50 that HBC might have received in London works out to about $176 in today’s money.

I’ll close by asking anyone who has more information on this topic, or can suggest other sources that might provide a basis for responding when Fort visitors ask “how much was a beaver pelt worth?” to let me know.

Tom Holloway

Editors Note:
According to Fur Harvesters Auction, Inc. the January 7, 2012 fur sale averages are as follows:

<table>
<thead>
<tr>
<th>Species</th>
<th>Average Sale Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaver</td>
<td>$7.03-33.85</td>
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<tr>
<td>Mink</td>
<td>$20.87</td>
</tr>
<tr>
<td>Otter</td>
<td>$82.15</td>
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<tr>
<td>Muskrat</td>
<td>$8.72</td>
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<tr>
<td>Fisher</td>
<td>$38.00-57.47</td>
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<td>Raccoon</td>
<td>$13.51-18.89</td>
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<tr>
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<td>$26.64-53.43</td>
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<tr>
<td>Grey Fox</td>
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<tr>
<td>Skunk</td>
<td>$2.51</td>
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<tr>
<td>Coyote</td>
<td>$63.30-96.77</td>
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<tr>
<td>Wolverine</td>
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<tr>
<td>Wolf</td>
<td>$125.31-403.94</td>
</tr>
<tr>
<td>Weasel</td>
<td>$3.56</td>
</tr>
</tbody>
</table>

The beaver felt hat in the contact station cost around $300.
Report from your Prez

At the 2012 annual meeting, a meeting required by our bylaws, I was elected to the office of Board President. My qualifications being I was the only person willing to have their name submitted for the position. Hopefully we have more interest next time.

Attention must be drawn to the tenure of Craig Webster. No President before or since will put in the time and effort he has; and we are grateful for his efforts. In visiting the blacksmith shop every day of the week Craig noted that the craft training and historical presentations varied greatly among the different volunteers. Under his leadership a training committee was formed, extensive combing for old instructional materials undertaken, and a draft training/shop ops manual for both shops presented to the Park administration for their adoption. A draft copy is in the blacksmith shop bookcase in the yellow binder. A key element for both manuals is Shop Safety. As the new Pres I will be following Craig’s example in shop visits.

Currently in the development stage are instructional videos on A Proper Forge Fire (Dave Stearns), Opening And Closing The Shop (John Prutsman and others) and Use Of Flint And Steel (Clay Ford). This is all possible because Mark Dodd has stepped forward to offer his services in shooting and editing videos for us. Mark is the husband of Eva Dodd a part time (summer) ranger. We thank both of them for their dedication to the park and its volunteers. If you have suggestions for other videos please let us know.

Fred Cormac has purchased and donated two blacksmithing books to the interpretive library that is in Mike Twist’s office. The donation is in memory of Bob Race a 20 year site volunteer in both Blacksmith and Carpenter shops. All are encouraged to check out “A Blacksmith Primer: A Course in Basic and Intermediate Blacksmithing” by Randy McDaniel and “The Backyard Blacksmith: Traditional Techniques for the Modern Smith” by Lorelei Sims and give them a read. There are other blacksmith texts in the library that you might find of use. Mark Aspery’s Skills of The Blacksmith is another suggestion.

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At its normal rate. Keep “a head ” by always having air in the upper chamber. Over-riding the bellows will not solve the problem of a fire that does not get hot enough. If your fire is having trouble getting hot enough, you may have too much clinker in the fire, or the tuyere might be blocked. Try rotating the clinker breaker, but do not force it. If it will not rotate, wiggle it back and forth until it will rotate.

Cleaning Your Fire - From time to time the clinkers and cinders that accumulate over the tuyere should be removed. Rake the fire with a angled poker or dig to the bottom and lift the fire with the shovel. When hot, clinker is almost fluid and sticky. Most of the clinker and ash will generally stay in the shovel as the coke falls off the sides. The burning fuel is then raked back into the firepot and the outside packed down, using green coal on the outer edges if needed.

Quenching Your Fire - At the end of the day it is important to properly take apart your fire to ensure it is properly quenched and there is coke remaining for the next smith. Rake all the green coal off to the side of the hearth and use water on the hot spots. Avoid putting water on the hot firepot. Next rake all coal and coke that is above the level of the firepot to the front of the hearth and quench it as well. Do not dig all the coke and ash out of the firepot. Leave that for the next smith. It is much easier to deal with the clinker when it has cooled and has not been broken up into many small pieces.

The park service buys over $4,000 of coal a year. Keep your fires in line with the size of stock you are forging.
GUILD CALENDAR

Saturdays-Parade Ground and Sundays-Fort, Now-September 2 (1:00 p.m.):
Historic Weapons Program (Small Arms and Cannon)
Learn more about the weapons in use at both the Hudson’s Bay Company’s Fort Vancouver and the U.S. Army’s Vancouver Barracks. On Saturdays meet on the parade ground for historic weapons firing demonstrations using military arms, on Sundays meet in the courtyard of Fort Vancouver for historic weapons demonstrations of the weapons of the Hudson’s Bay Company, unless a weekend event is scheduled. Black Powder programs on the parade ground are free of charge. Entrance fees to visit the fort apply for non-volunteers.

Ongoing
Yamhill Valley Heritage Center, McMinnville, Oregon is looking for people to work its blacksmith shop before the public. No experience required, coal forge and hand tools set up.
Contact Bonnie for details.

Sept. 15th
Campfires and Candlelight
Stroll back in time and experience the nightlife of U.S. Army soldiers, Oregon Trail immigrants, and the residents Fort Vancouver Village. Once inside the Fort, visitors have the opportunity to observe life evening activities by campfires and candlelight. Contact Cassie Anderson as soon as possible if you are interested in volunteering.

Starting Sept 29 every other Saturday evening
Lantern Tours
Take a lantern-lit journey with a Park Ranger through a night at Fort Vancouver! Peak into the past with vignettes by costumed interpreters, and learn about your urban national park then and now. We need Blacksmith volunteers for this event—maybe Carpenters too.
Contact Craig Webster for more details.

Oct. 26th 27th and 28th
Williamsburg Weekend
A demo only workshop by Stephen Mankowski, Colonial Williamsburg blacksmith will be at Fort Vancouver National Historic Site, Vancouver Washington. The subjects of the demo is TBA.
Contact Ike Bay for more details.

Nov. 2, 3, 4
Williamsburg Workshop
A hands-on workshop will be at Meridian Forge in Eatonville, WA. Topic: Set up and material displacement by making a thumb latch, spatula (keyhole form) and tasting spoon.
Contact Darryl for details
Both events are fee based.

Dec. 8
Christmas at the Fort
Experience the sights and sounds of the 1800’s holiday season at Fort Vancouver. Visitors will be able to view and participate in activities undertaken by residents at the fort during the holiday season.

Williamsburg Weekend
Stephen Mankowski, journeyman blacksmith at Colonial Williamsburg will be our demonstrator this year.
His Colonial Williamsburg tenure started under Peter Ross in 1988. Presently, he is working as journeyman under Ken Schwarz.
Steve has been interested in traditional methods of blacksmithing since the very beginning and has demonstrated around the country and enjoys sharing traditional methods learned during his storied career.

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The Forge & Plane is the official newsletter of the Fort Vancouver Trades Guild. Please send your comments, submissions, and suggestions to: Craig Webster, Editor 2509 E 29th St. Vancouver, WA 98661 blacksmith@iinet.com

If you would like to be added to the electronic distribution list, please send an email request to blacksmith@iinet.com

Unfortunately, due to postage and printing costs, distribution of printed copies is limited to those guild members whom specifically request a printed copy. All other copies will be distributed in pdf format.

To be successful, the newsletter needs submissions to the Members Gallery and Letters to the Editor the most. This is a place for guild members to get to know the work of the other members and to share their feelings regarding the guild.

Please consider joining, or renewing your membership in, the Trades Guild using the enclosed form. While Guild membership is not required to volunteer in the shops here at the fort, the more members that we have, the more effective we can be to accomplish our goals. We are working to improve the opportunities to learn both the craft and interpretive skills. This can best be accomplished with a high rate of membership from the volunteers. You can place your completed form in Clay Ford's folder in the contact station or mail it to the address on the form.

**Fort Vancouver Trades Guild - Membership Application**

- Regular Annual Dues: $10.00
- Junior Annual Dues: $4.00
- Family Annual Dues: $14.00
- Honorary Annual Dues: $0.00
- Patron Members: One time $100.00+ gift

Name: ______________________________________________________________________________
Address: _____________________________ City:__________________ State: ______ Zip:___________
Phone: ________________________ Email Address: _________________________________________

- ☐ I would like to be a regular volunteer at Fort Vancouver.
- ☐ I would like to attend Special Guild Events.
- ☐ I do not wish to be volunteer, but wish to support the Guild.
- ☐ I am primarily interested in the Carpenter Shop
- ☐ I am primarily interested in the Blacksmith Shop
- ☐ I am interested in both the Blacksmith and Carpenter Shops.

To become a member, please fill out this application completely and submit it with your dues to any Guild Officer or mail to: Fort Vancouver Trades Guild, C/O Clay Ford 16119 NE 319th St., Battle Ground WA 98604

Method of Payment: ___________________________ Receipt #: __________________ By: ____________________________