Volume 21 Issue 08 Sept 2007

FORGE

Dedicated to the revival of the "King of Crafts"

Vancouver Island Blacksmiths

www.viblacksmiths.com

Demo... Maria Cristalli

Sept 22,23 one day format , hands-on, Same class each day

Joinery Special—tenon cutting, heel tenons etc

$40 per day 8 participants max per day

Call Jake James (250) 642-6984

COMING EVENTS

Sept 15,16— Luxton Fall Fair

Sept 15,16— Saltspring Fair

Sept 22,23 — Maria Cristalli demo

Sept 30 — VIBA Meeting Luxton

Index

The Flying Forge... getting ready for Saanich

Submissions & Contributions

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

VIBA - The Editor
1040 Marwood Avenue
Victoria, BC Canada
V9C 3C4
OR
Email: dgillett@shaw.ca

President's Report

By: Charlie Dowdeswell

Presidents Report July Meeting
Charlie Dowdeswell
August 2007

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

After welcoming new members Shauna Francis, Jason Harvey and guests in attendance, the show and tell portion of the meeting began. Ray Orchard brought an 'unknown thing' that was duly poked and prodded and observed and now seems to be an 'unknown thing' with several potential identities. Don Startin had the teaching station 'stuff' and the 'how to' instructions. The remaining Fair demonstrations at Coombs, Nanaimo, Saanich, Cobble Hill and Salt Spring as well as our home Fall Fair at Luxton were discussed and the sign-up were sheets duly adjusted. There is a potential offer of a 'hammer in' at Clint Montgomery's new shop, probably sometime this fall.

There is discussion of making a list to pass on to the CanIRON VII committee, when it is struck, of our experiences with CanIRON VI - the good, the bad, and the ugly. The purpose would be to have a permanent and expanding list that would be helpful to any future CanIRON committees. We also discussed some' finish up stuff' brought to our attention by Larry, that was duly completed by a few members shortly thereafter.

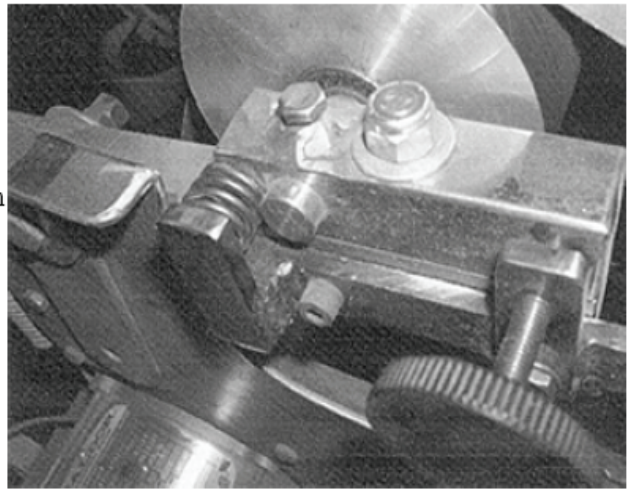
As there is no August meeting. I hope to see everyone, either at the Monday -- Wednesday shop nights, or the September meeting, which is the last Sunday of the month. It would be great to see most of you at our remaining 'Fall Fairs too. Just to add something that was not brought up at the meeting, we have sold most of our 'table items' at the Fairs and are in need of some saleable donations. As well, two or three work parties seem to be in order over the winter and can be discussed at the September meeting. Until next time - Charlie

Coal Available by the pick-up load

Ian Crawford reports that Quinsum Coal in Campbell River will sell a pick-up load of coal for $50 Call Terry Waters in Campbell River at 923-4154

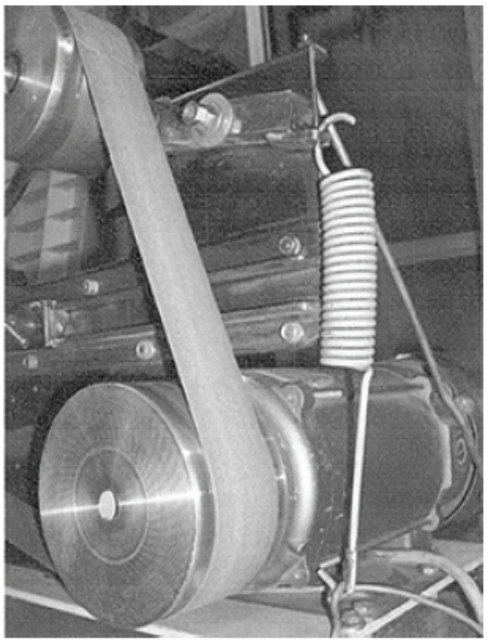
Belt Grinder Design and Construction Cont'd from June 2007

Reprinted from The Clinker Breaker Florida Blacksmith Assoc by Otto Bluntzer-Genesse forge



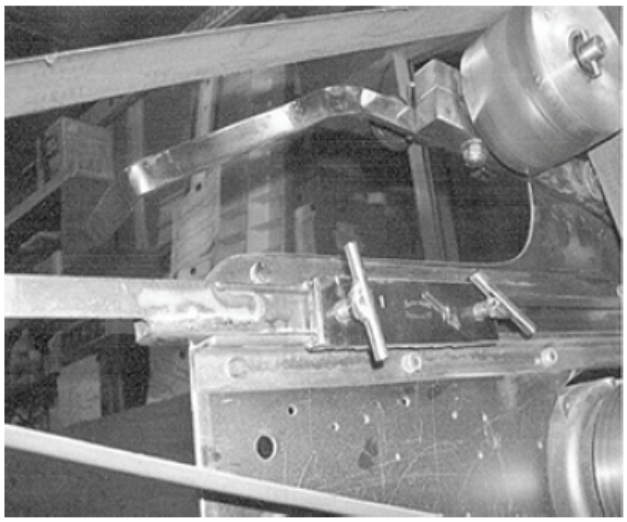
(9) IDLER WHEEL TRACKING MECHANISM

The "Idler Wheel" or "Tracking Wheel" is adjustable. Its position can be slightly rotated on an horizontal plane which causes the belt to ride properly on the contact wheel. The large thumb screw seen in the picture to the right is rotated in order to properly position the "Idler Wheel". To the left of the mechanism is a Briggs & Stratton valve spring which counteracts the pressure of the large thumb screw. The "Idler Wheel Shaft" appears immediately



(10) SPRING TENSIONER FOR BELT

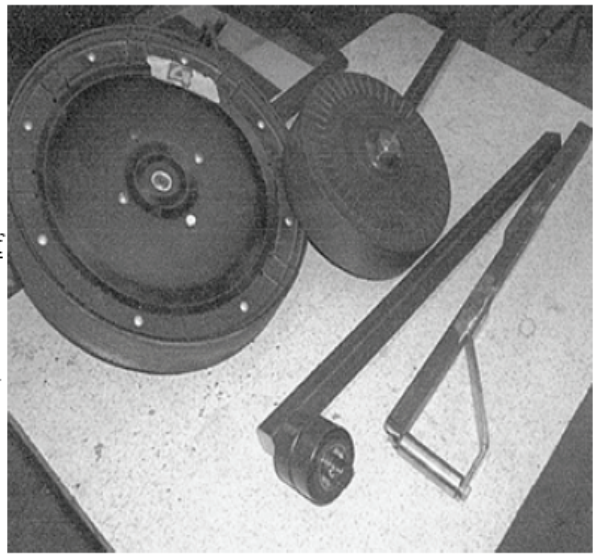
Pictured at right is the spring which applies pressure to the sanding belt. With this arrangement there is no tendency for anything to fly off or away from the winder in the event that a belt breaks. Belt tension is adjusted by how much of the "Contact Arm" is allowed to extend from the "Contact Arm Guides". The "Drive Wheel" is at the bottom of this picture. Mounted behind the drive wheel (not visible in any view) is a speed sensor which causes the DC motor to maintain the RPM to which the control panel has been adjusted. The smaller of the two wires at the lower right comer of this view is the cable which returns to the control circuitry providing the necessary feedback. Consider this feature the same as "Cruise Control" on an automobile. Under heaviest of loads I have not been able to slow the motor. This is true from the lowest RPM to full 3,400 SFM.



(11) TENSIONER ARM

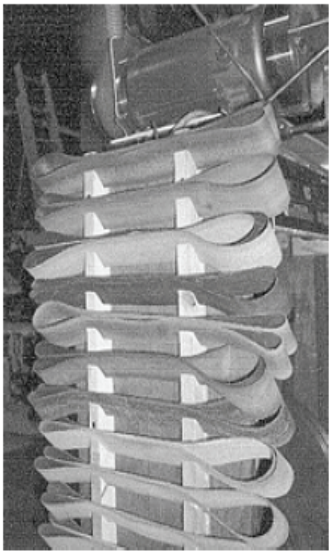
In order to remove or install belts on the grinder, the "Tensioner Arm" is depressed. Then the belt may be easily slipped on or off. This arm is attached to and pivoted at the "Upper Support" at the rear. In order to prevent the belt from wandering off the contact wheel, as heavy pressure is applied, the entire mechanism should be stoutly designed. This picture also shows a view of the two "Contact Arm Guides" along with the "Arm Locking Mecha nism". Bolts are used to secure the angle iron guides to the "Upright".

(12) CONTACT WHEEL CONSTRUCTION



Four "Contact Wheels" were described earlier. At the lower right is the smallest, a 3/4" X 2-1/2" wide wheel. Note the angled bracket on that is included to provide rigidity. All four wheels have mounting arms as earlier described, made of 1" X 1" stock. It should be noted that a high quality set of bearings which are designed for high RPMs should be used for the very small contact wheels. Their RPM is very high even at moderate motor speeds. Pressures applied to these smaller wheels are much less than the larger contact wheels. It should be noted that the axel shafts for these rollers must maintain true right angles referenced to the mounting arms to avoid belt tracking problems.

(13) SANDING BELT and CONTACT WHEEL STORAGE

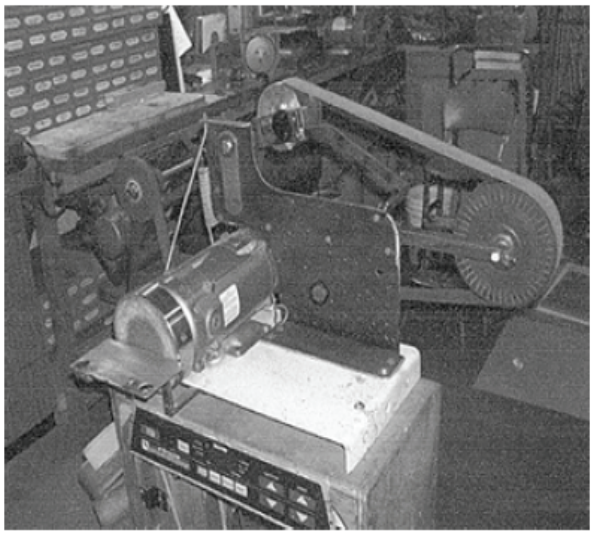


A slotted rack was built to store the 2" X 72" belts. At the rear of the stand. The stand is open on both left and right sides allowing for mounting of the "Rectifier Circuit" and "Control Panel". Racks for storage of the four contact wheels are included.

(14) ADDITIONAL COMMENTS

(A) The "Upright Support" should be made of heavier plate than what is used here. Note that a reinforcement bar has been added from the top of the "Upright Plate", angling down to a point behind the motor where it is attached to the "Base Plate". The 14" Contact Wheel may require additional bracing as the wheel has some vibration at medium RPM. A gusset plate may be welded to the "Upright Support" at the front to provide additional rigidity.

(B) The addition of a "Disc Grinder" attachment was included as the Baldor Motor came with a heavy flywheel which was precision balanced. By gluing on a sanding disc and constructing an adjustable table, the need for a seperate disc sander no longer exists.

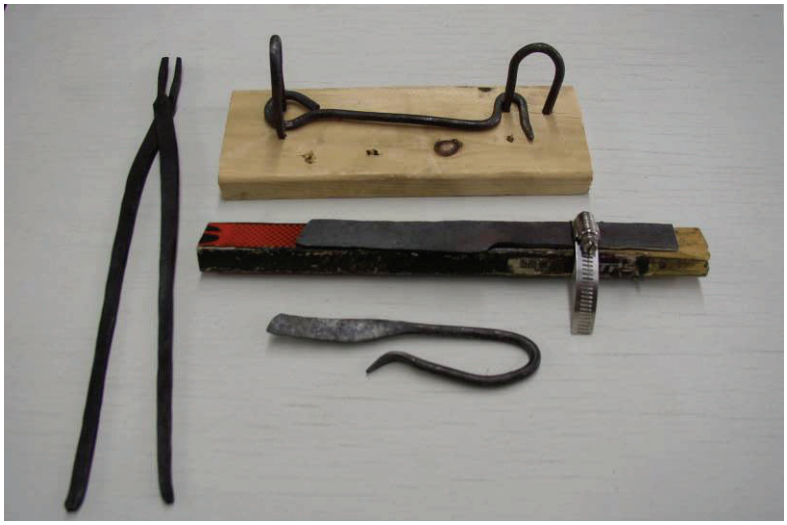


(C) DC Motor controllers are now available which are not nearly expensive as those in the past. A "Variac" along with a "Full Wave Rectifier" (high current rating) with the use of a couple of spike protection capacitors will also provide an excellent means of DC motor speed control.

(D) A considerable quantity of articles and illustrations are on file relating to belt sanders. For further information: hezzy@eznet.net

Show and Tell

Photos by Willi Tobler



Gate Latch, Starter tongs, and knife clamp from hockey stick and hose clamp from Don Startin

What is it ? Maybe a ceramic tile hole cutter? From Ray Orchard

Saint Clement... the Patron saint of blacksmiths

suggested by Dave Winestock

Charles Dickens made several references to blacksmithing in his now famous novels. In Great Expectations he refers also to their song, named after Saint Clement. Throughout the novel there are numerous references to the song "Old Clem." The first one occurs when Pip is pushing Miss Havisham around her room and she asks him to sing a song. Pip states, "It was a song that imitated the measure of beating upon iron" (104; ch. 12). The song comes from the blacksmith's patron Saint Clement. He is said to have an anchor as an emblem and was martyred by being tied to an anchor and thrown into the sea. Blacksmiths took a holiday on November 23rd, The Day of Saint Clement. It was often celebrated with loud explosions of gunpowder on anvils. A senior apprentice dressed in a cloak and mask to represent Old Clem and was carried in a procession that would move around town and stopped at all the taverns along the way. At all their stops the blacksmiths told the brief history of Old Clem and then passed a box around for donations. The money paid for the apprentices' supper. The story of Saint Clement has numerous origins, but all are relatively the same. See page 10 for the song text.

Just a gate, with a hand made latch, at Wooley Mill Farm

THE IRON IS 'HOT' IN THE UK

By Ron Greig

One thing you are bound to notice when you visit the UK, especially as a black smithing wannabe, is the abundance of really good and well worked iron! It's in the Cathedrals, it's in the Castles and you can even find it in quiet country lanes, like this one at Tintwistle, near Glossop & Manchester.

I find myself, half the time, looking at the iron work when I am supposed to be admiring something else...it just blows you away. The great thing about it, too is that there are apprenticeships and people applying those iron-working skills they've learned, both in restoration work and creating new pieces; but I must say I am really, really taken with the old stuff.

During a recent trip, one of the places we visited was Durham Cathedral; an incredible building with magnificent towers, vaulted ceilings, *(I still don't understand how they got them to stay up while they were building)*, stained-glass-windows and wood-carvings...and, almost un-noticed by the pressing throng of tourists, a great deal of ancient iron work.

The Cathedral itself was begun in 1093 and was largely completed in about 40 years; a very short building time back in the 11th Century. And it *is* magnificent, but the guide books don't point out the little, battered door I found along the way. It had wonderful quirky hinges and an interesting locking-latch but, unfortunately, there is no picture taking allowed, so I can't show you what it looked like. It does make you think about somebody making those pieces....possibly original to the structure...in a day when there was no mass-production. Somebody who had to learn their trade and make a living from it at a time when their life-expectancy was probably about 34 and their pay a pittance.

There is much more iron-work to see, in that Cathedral, but the thing that caught my eye, *(and resulted in my asking for special dispensation, from the Verger, to allow me to take a photograph)*, was a set of doors behind the reception booth. They were massive! Something like 20' wide, *(6.096m for those of you under 40)*, by about 25-to-30' *(7.62m-to-9.144m)* high, combined...but, of course, I wasn't allowed to measure them. In fact, I wasn't allowed to get anywhere near them.

The topmost hinge of 3 on each door at Durham Cathedral; and there's another set of these doors at the other end.

Each half-arch-shaped door is supported on three equally massive hinges, which appear to be dropped onto pintles. How they ever hoisted them into place, once the doorway was completed, is beyond me! The hinges themselves, as you can see, go almost the full width of each door, that means they are perhaps 3-to-4' deep, by 8-9 ½' *(.914 to 1.2192m by 2.4384 to 2.8956m)* . And, somebody had to cut and pound these out in the 11th Century! I wish you could see this hinge in colour. Despite the fact I was unable to use a flash to take the picture it turned out not too badly....but, it *is* clearer in colour.

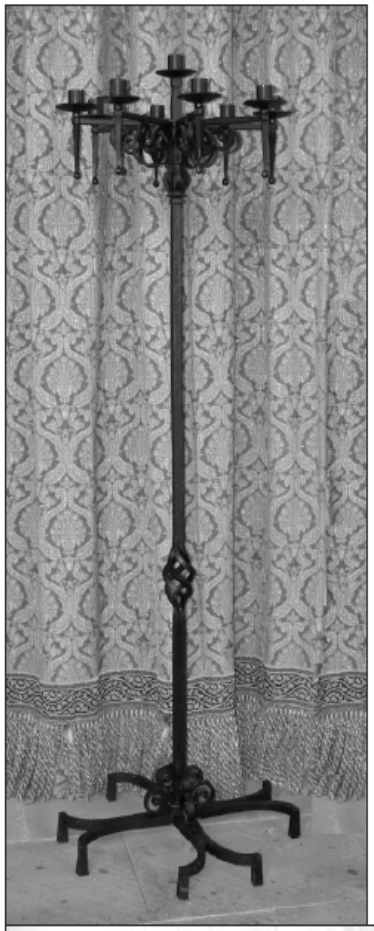
Durham Cathedral Door Knocker

This is the door-knocker at the Cathedral. It is just a replica...but interesting. The escutcheon...if you can call it that...is about 20" *(50.8cm)* in diameter, which will give you some idea of the over all size.

In the middle-ages the Cathedral provided a refuge for fugitives; anyone who had committed a serious offence could claim sanctuary by knocking on this door. They were then given 37-days to get their affairs in order, following which they had to decide whether to stand trial or leave the country by the nearest port. It would be interesting to know how many of them actually made it to the nearest port, if that was their choice.

Durham Castle, while rife with woodwork, history and legends surprisingly held little in the way of iron work.

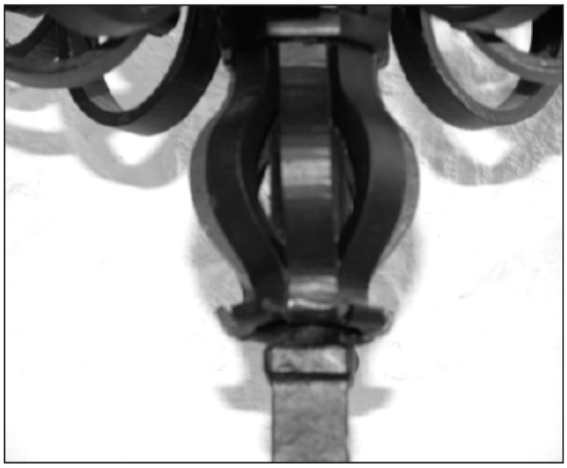
There is, on the other hand & as might be expected, a bit of iron work at Stirling Castle although much of everything there appears to have been cut out and disposed of during the time the military occupied the hill, including the trappings of the most famous rooms. In fact, Stirling's a bit of a disappointment; but I did find some interesting iron candle sticks.



I don't believe they're original but they are interesting just the same.

They have been made out of some 2" *(5.08cm)* stock, with a basket twist about one-third of the way up. All the scrolls are banded in place...although they might have been cunningly welded too.

They stand about 6' *(1.8288m)* high, and each holds nine candles, including the one in the center.



The head of each candle stick appears to lift off.

The feet are split, then bent, from the same 2" *(5.08cm)* stock.

The feet appear to be split and bent from the same 2" thickness of metal. I suspect that the actual candle holder can be lifted off the stand, in one piece, perhaps for the ease of cleaning and replacing candles.

Andirons at Stirling Castle. The appearance of being flat is due to a shadow from my flash.

There were also some interesting andirons, or firedogs if you prefer.

They appear to have been made out of the same thickness of material as the candle holders, with the upper scroll & acorns drawn out while the lower scroll and log support were cut, & fashioned. The feet were made from what was left.

As a blacksmith, if you get within driving distance of Leeds...and there are those who would question why anyone would want to get that close to Leeds....you owe yourself a trip to the Royal Armouries, but don't plan to just go for a few hours, or even a day; the Royal Armouries is an end destination. You could easily spend days there and still be discovering something new.

There you will find every weapon devised by man from the earliest times down to the present...well, maybe not an atom or nuclear bomb. Not just the weapons of England and Europe, but those of the Orient and elsewhere.

When you enter the museum, the first thing to catch your eye is a 6-storey, well-like display of weaponry. Most of it antique, although there are new items inserted to finish

The 'Weapon Well' at the Royal Armouries, Leeds.

the display...items you could not tell apart from the originals. The artist/craftsmen who still make these weapons, from knives, swords & armour to black-powder guns, have their shops just around the corner from the museum. On a good day, you can meet and talk with them, as well as watch them at work.

An armoured gauntlet.
You can't help but appreciate the detail in the jointed fingers and the designs worked in for pure pleasure.

The amount of armour on display is astonishing..and the detail even more so. You might imagine armour being simply utilitarian, but nothing could be farther from the truth. There is, of course, plain armour, of the type the average Joe would wear in battle, but there are also examples with finely wrought patterns; some are even embellished with gold, such as this suit.

This armour had an intricate design embossed repeatedly over its surface, with each design lozenge touched with gold!

Ground Combat Armour of Henry VIII (1457-1509)

This particular suit of armour belonged to Henry VIII, and was used for 'ground combat'...which I presume means fighting on the ground at a tournament, not in a war situation.

I must explain that the suit was displayed in a small teepee type tent, which did not allow me to take a picture of the entire suit at one time....so I did it in two shots and have stitched them together, and wiped out the background, so you can see the complete outfit; well complete minus the top of his helmet..and I think I may have lopped off his spurs!

Notice the cool square toes!

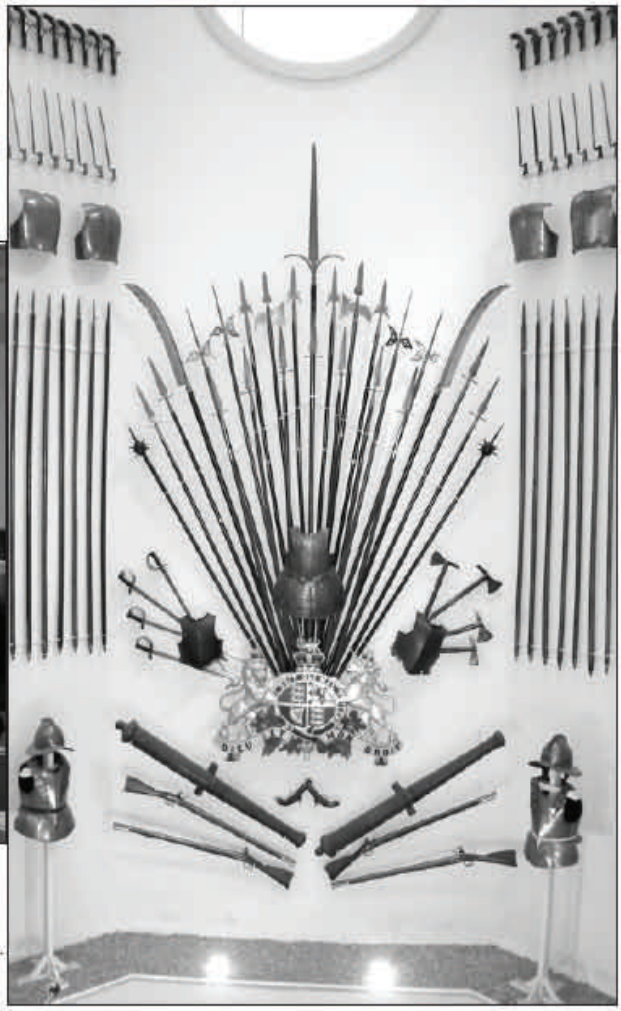
An interesting flintlock, with a stock that flips open to provide a grenade launcher!

The black-powder boys, in VIBA, and those of you just interested in guns in general, would find much of interest as well...there are display cases full of every description of early guns, and other cases with the latest

the 20th & 21st Centuries have had to offer. Although time did not permit us to visit, I was told there is a section somewhere in the museum with artillery, down through the ages, and another section with tanks!

Before tanks, there were horses, so horse armour is very much in evidence as well.

A well armoured horse & rider. Perhaps it didn't matter if he couldn't see where he was going, he could always skewer a foot-soldier with those shoes!



Right: One small section of what I call the 'weapon well'.

I will leave you with two of my over all favorites:
The 'Moustached Masked' helmet and the 'Horned Helmet'...this latter has become the logo for the Museum.

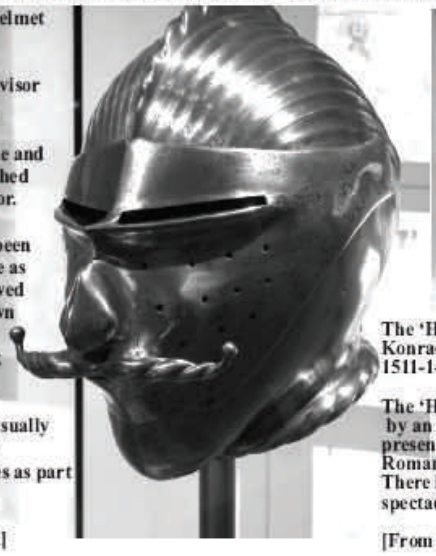
The 'Moustached Masked' helmet
German, about 1525

The helmet has an imposing visor in the form of a human face. It is virtuoso example of metalworking: the moustache and nose are not separately attached but made in one with the visor.

The moustache would have been particularly difficult to make as enough metal had to be allowed for the moustache to be drawn evenly out of a single mass, then twisted and folded back underneath the nose.

Such masked helmets were usually worn with elaborate fanciful costumed armours in parades as part of tournament festivities.

[From a card at the Museum]



The 'Horned Helmet
Konrad Seusenhofer, Innsbruck, 1511-14

The 'Horned Helmet' was decorated by an anonymous goldsmith, and was presented to Henry VIII by The Holy Roman Emperor Maximilian I, in 1514. There is no explanation as to why the spectacles.

[From a card at the Museum]

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

Old Clem... the blacksmith's song

St Clement's emblem

: : Hammer boys round - Old Clem!
: : With a thump and a sound - Old Clem!
: : Beat it out, beat it out - Old Clem!
: : With a clink for the stout - Old Clem!
: : Blow the fire, blow the fire - Old Clem!
: : Roaring dryer, soaring higher - Old Clem

Unfortunately I have no idea what the tune may have been like, but given it's complex lyric I would say it would likely be much like a hammering rhythm... with emphasis on the "old Clem".. .. DG