CBA

The California Blacksmith Association

The First Meeting

Steering Committee Meeting for a Blacksmith Organization

March 14, 1977

On Sunday afternoon March 6th persons listed met at Bob Owings' shop in Pt. Reyes Station to discuss the concept of forming an association of northern California blacksmiths. From the ensuing dialogue it was evident a local organization could be beneficial for both the professional and non-professional blacksmith. After a couple hours the group (identified as a steering committee for convience) was agreeable for further discussion.

Therefore it was the concensus to meet at Beau Hickory's shop, 503 Tunnel Ave, Brisbane, March 20th at 2p. Please be prompt.

Brumder, Nick & Phil Bedayn, Raffi Bachar, Nino Atkeison, Andrew Fleming, Gene Collins, Dean Carmichael, Doug Schronen, Karl Monaco, Johnson, Milo Jennings, Carl Hudson, John Hickory, Beau Hickman, Toby Hagist, Fritz Gravelle, Carl Larson, Eric Owings, Robert Reb

CBA Education Program

The California Blacksmith Association fulfills its primary function as a non-profit educational organization by sponsoring a number of ongoing blacksmithing workshops. These are lowcost workshops with the payment usually covering the cost of materials. Workshops are usually held in the shop or home shop of a member, but are sometimes held at museums or other public facilities.

The instructors are all qualified smiths who are volunteering time to keep the craft of smithing alive. Some instructors have years of experience as working smiths. All instructors have met a minimum qualification standard set up by the CBA education committee. They are also required to undertake additional ongoing training.

Compiled by the CBA Education Committee

Mark Paul Kochan April 2016

(2) Demonstrator/Instructor (39)

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The California Blacksmith Association

nstructors Handbook and Training Journal

You may choose to contact a CBA instructor who can help you determine your current abilities and skill level. They can offer training and provide feedback to help you learn safe technique to avoid injuries. It is not necessary or required to begin your blacksmithing education with a CBA Instructor but it is recommended as the best choice. We have many skilled Instructors that have completed Instructor Training and are willing to help you learn the craft. If you want to be recognized by the CBA as having completed a course of study this is your best option. The overview of the projects and skills for level one are outlined on the CBA website under the Education heading.

ed on the events page of the CBA magazine. of ongoing blacksmithing workshops. Major events are listnon-profit educational organization by sponsoring a number er possible. In addition, CBA fulfills its primary function as a al activities at events such as Spring Conference, Wayne's World, Oktoberfest, and special workshops offered whenev-The California Blacksmith Association also offers education-

CBA currently offers three certificate levels.

LEVEL I: Basic Blacksmithing

smith, including: ed the Level I, basic training or the equivalent. They will have shown an understanding of the basic skills of a blackwebsite) and have passed a safety test. By doing so they have presented to their instructor the Farm Gate Hook (see This certificate will be awarded to those who have complet-

- * Safety
- * Nomenclature of the hammer
- * Hammers and types of hammer blow
- * Tapers (Square octagon, round)
- * Handheld punch in a round hole
- * Hot cut (chisel or top tool)
- * Heat treatment
- * 7/8 x 1/8 slot Punch (or equivalent)
- * Hammer, eye drift (1/2 by 7/8)
- * Monkey tool (precursor to making a hammer level 2)
- * Butcher (chisel or top tool)
- * Upsetting
- * Round tenon
- * Smithin-Magician Tool
- * Forge welding
- * Bending over the bick or horn

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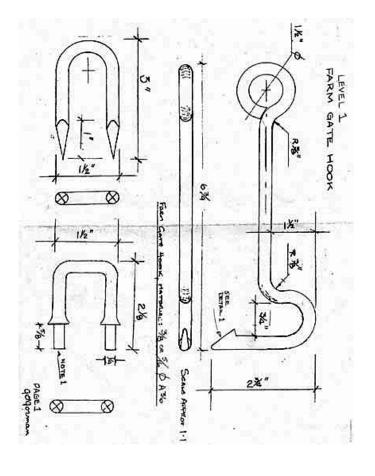
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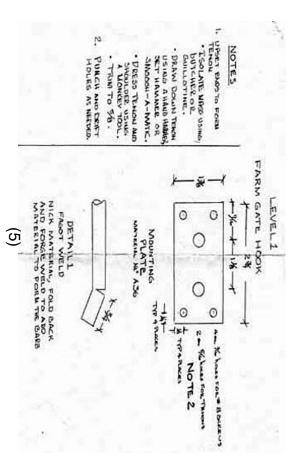
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Completion of these basic skills is expected to take approximately 40 hours. It is assumed that the beginning blacksmith has no shop or tools of their own.





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Demonstrator/Instructor

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Demonstrator/Instructor

(34)

LEVEL II: Apprentice

This certificate is awarded to those who show competence in all the skills required at the basic level. In addition, they will show that they can apply those skills in the construction of articles, as well as pass a safety test.

They will begin to learn how to make the tools required for this and the third level, Forging to Dimension. To receive this certificate, the blacksmith will present to their instructor a complete rectangular frame that uses traditional joinery (two L-shaped pieces with one end tenoned and the other punched with an upset square corner between; refer to the Intermediate Grill Drawing).

The frame is to be filled with the four different ends as shown for each scroll and the scrolls collared together. It is suggested that the student first transfer the drawing onto metal and practice forging to dimension.

Passing this level demonstrates competence in the Intermediate skills of a blacksmith including:

- * Leafing hammer
- Fuller
- * Making a heading plate for bottom tools
- * Cape chisel (maybe needed for heading plate)
- * Hardy tools (Bottom swage) (case hardening)
- * Scrollwork and the scroll form
- E.G. Ribbon scroll
- Fish tail (scroll form)
- Half Penny
- Beveled Scroll
- * Scrolling work (case hardening bottom tools)
- * Scrolling Tongs (riveting) (draw out or forge-weld reins)
- * Forge-welding (lap or drop tong weld)

- * Open or flat jaw tongs (draw out or forge-weld reins)
- `Collars
- * Upset square corner

Completion of these skills is expected to take approximately 50 hours. It is assumed that the Intermediate blacksmith has their own shop and most of the basic tools. Some of the skills (for example, making a heading plate for bottom tools) will be taught at Education Committee Instructor Workshops.

This certificate is awarded to those who show competence in all the skills required at the intermediate level. In addition, they will show they can apply those skills in the construction of articles and pass a safety test. To receive this certificate, the blacksmith will present to their instructor a complete rectangular frame that uses traditional joinery (two L-shaped pieces with one end tenoned and the other punched with an upset square corner between.)

The frame is to be filled with two 'S' scrolls (with different ends on each scroll) and the scrolls collared together. It is suggested that the student first transfer the drawing to metal and practice Forging to Dimension.

A photo of the completed grill must be provided to the CBA magazine for publication.

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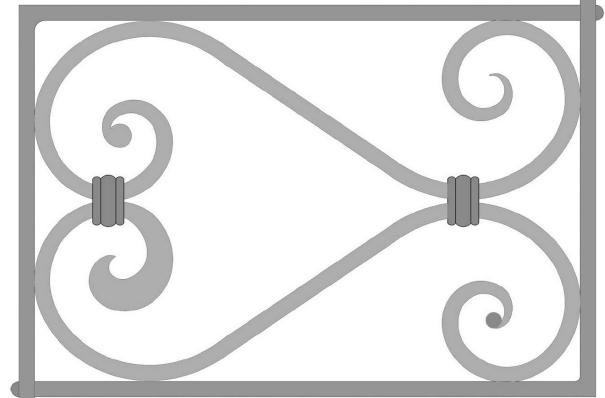
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Demonstrator/Instructor



Level II Intermediate Grill Drawing

Full size drawing is available in ABANA's Hammer's Blow magazine. Vol. 21 #3 Summer 2013. Use 3/8 x 3/4 flat stock. Copies can be obtained at most CBA hammer-ins.

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Demonstrator/Instructor

(30)

LEVEL III: Journeyman

a completed project: of articles and they will become proficient in making the all the skills required at the advanced levels. In addition, this certificate, the blacksmith will present to their instructor tools required to produce The Journeyman's Grill. To receive they will show they can apply those skills in the construction This certificate is awarded to those who show expertise in

be presented with the completed project). The Journeyman's Grill (The actual working drawing must

elements, mastery of the Intermediate Skills and competence in the skills of the Journeyman Blacksmith The Level II Grill demonstrates skilled application of repeat

ing this coursework they will have shown mastery of the Successful Smiths must also pass a safety test. By complet-Intermediate skills of a blacksmith and the following:

- * Tool Making
- * Leafing Stake
- * Crimping Stake
- * Male for making ball tools
- * Top tool for shaped collar
- * Forging to dimension
- * Repousse
- Forge welding
- Collars
- Mortise and Tenoning
- Riveting
- * Joinery
- * Scrollwork
- * Framing (upset square corners)

Completion of this project is expected to take approximately 100 hours. It is assumed that the Journeyman Blacksmith has their own shop and most of the basic tools and that they will only need the guidance of a mentor. It is also expected that the blacksmiths will have made some of their own tools. Some of these skills will be taught at Education Committee Instructor Workshops.

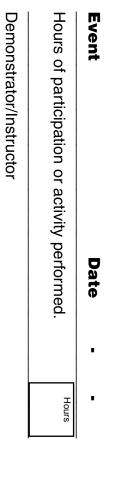
A photo of the completed grill must be provided to the CBA magazine for publication.

Instructor Certification

In April of 2016 the CBA Education Committee changed the requirement for Instructor status. A blacksmith may become an instructor only after completing level II, or III. An instructor must complete level II to teach level II and Level III to teach Level III. All current instructors are grandfathered in. The Instructor Certification is based upon demonstrated ability, interest, and willingness to teach other blacksmiths. A prospective Instructor receives his or her Instructor Certificate following completion of a Public Demonstration of a specific project, including a Storyboard detailing the steps. Handouts describing the processes are encouraged, and should also be provided to the California Blacksmith magazine editor for publication. The demonstration project may be of the blacksmith's own choosing, although it is desirable that it be reviewed by the blacksmith's instructor.

Note: An Instructor does not have to host/teach further classes - they are expected to be available and willing to help Beginner/Novice students. An instructor is expected to take Instructor refresher classes each year.

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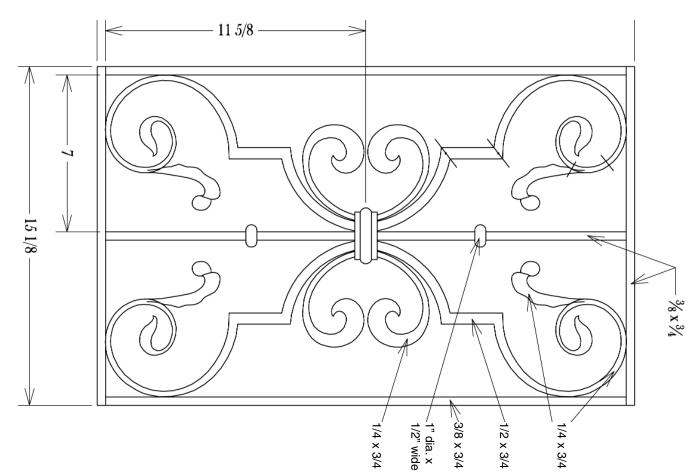
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Demonstrator/Instructor



The Level III Grill

(13)

ALTERNATIVE SELF GUIDED TRAINING

As provided by

The Artist Blacksmithing Association of North America (ABANA)

Forging Fundamentals - As a Workbook / Training Manual

Forging Fundamentals is controlled hand forging lessons that have been put together by the ABANA Educational Programs Committee. As an ABANA affiliate these lessons are provided to the CBA member free of charge on the ABANA website. There are 26 lessons culminating in the National Grille Project. (CBA Level III)

You can find the forging lessons online at: https://www.abana.org/resources/chf.shtml

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Demonstrator/Instructor

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Demonstrator/Instructor

(26)

Controlled Hand Forging

bottom of the web page to visit Adobe and download the these files on the ABANA website click on the icon at the NOTE: The files below will be in Adobe PDF format. To view reader for free!

es	Safety, Ergonomics and Shop Layout Drawing Out
5)	
Lesson #Z	Hot Funching
Lesson #3 	Lesson #3  Drawing a Round Taper & Bending
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Lesson #7 Lesson #5 & #6 Twisting & Drawing, Punching and Bending Upsetting

Lesson #9 Lesson # 11-2 Lesson # 11-1 Lesson #10 Lesson #8 Lesson #12 Drawing Down - Part 2 Forging A Shoulder Drawing Down - Part 1 Splitting Mortise and Tenon Joinery Forge Welding

Lesson # 14 Lesson # 13 Bending - Forging a 90-Degree Corner Cutting a Bar Drawing Out - Forging a Ribbon Taper Bending - Forging an Eye on the End of a Bar

Lesson # 15 Lesson # 16 Lesson # 17 Lesson # 18 Lesson # 19 Cutting - Splitting the end of a bar Drawing Out - Using the peen Drawing Out - Forging a square bar into a round bar

Lesson # 22-1 Lesson # 21 Lesson # 20 Forging Tongs - Part 1 Forging a Square Punch and Drift Forging a Fishtail

Lesson # 23 Lesson # 22-2 Forging Tongs - Part 2 Drawing Out Round Stock to Square

Lesson # 24 Making a Round Drift Forging Right-Angle Bends

Lesson # 26-2 Lesson # 26-1

Forging Two-Sided Shoulders - Part 2

Forging Two-Sided Shoulders - Part 1

Grill Beveled Leaf Scroll Beveled Leaf Scroll (for ref) Grill Full Scale Grill Upper Left Quadrant Full Scale Print on 8.5 x 14 Grill 1/4 Scale Grill 1/4 Scale Full Drawing Print on 8.5 x 11

(15)

What is the Forging Fundamentals program?

This voluntary program is a progressive set of lessons which emphasize ten forging fundamentals: Fire maintenance, drawing out, bending (including straightening), upsetting, punching (both through punching and ornamenta punching), slitting, drifting, welding, twisting and joinery.

Demonstrator/Instructor

Hours of participation or activity performed

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The focus of the program is five fold: To teach hand forging methods, present a curriculum which can be studied and in the home shop, explain a method for an individual to recognize his or her accomplishments, provide tolerances for comparison, and emphasize consistency in workmanship.

We want it known that this is but one path to learn how to forge, not the only path. We also want to emphasize that these lessons will teach only a process, and not a style. Our goal is to prepare the student to approach any facet of forging discipline and style armed with solid forging fundamentals.

What makes this program different?

This program breaks down forging basics to its most fundamental level. The lessons will be presented step by step through words, drawings, and photographs of the various processes used in the 10 forging fundamentals listed. There will be several lessons detailed for different applications for a given fundamental, and many more lessons in some fundamentals which require more explanation. At the end of a series of lessons, a project or projects will be proposed to challenge the student. The projects may be practical, due to the fact that the finished project may have a use as a tool, or the project may be simply an exercise to train the student.

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What is a good twist? What is a solid weld? What is a sharp angle bend? When is a bar straight? A self-evaluation section for each lesson which teaches the student to "see" is included. A process can be explained, but the results are often questionable for the novice. We provide some answers, and also some problems to watch out for in the forging process. How should a taper look? "How should the edges of the bar look?" "How many heatings in the fire will I need?"

We are specific in what we believe are "targets" for these lessons. The targets will help the student to determine when they are executing the lesson correctly, as well as expediently. The introduction to the program spells out safety precautions, hazards, and protective gear.

The "forging dynamics" are covered which illustrate how metal moves under the hammer, as well as terms and definitions. Explanations of the fundamentals are spelled out. For example, "drawing out" (reducing the cross section) includes (A) cross sections, (B) tapers, i.e. flat, square, and round, (C) points, (D) fullering.

A section explaining tools, their descriptions and uses is included. Another section discussing supplementary operations such as heat treating and knowledge of various carbon steels. Tool making is also included. A section discussing ergonomics is also presented.

How will the lessons be delivered?

Initially, the lessons will be provided through the Hammer's Blow, with availability to the ABANA affiliates. Eventually, when the series of lessons is complete, they will be compiled into a manual available by purchase through ABANA. By that time we hope to have completed a video series of

the lessons as well. The manual will then be a companion book to the video series, also available through ABANA for purchase. The videos will be edited to conserve time. For example, we will edit the heating of metal and concentrate on forging. Each Hammer's Blow will also be a resource in your own library for back reference, with back issues available for purchase through ABANA.

The lesson will also be posted here on the ABANA website under "Resources" and will be updated as each lesson becomes available.

Who can take the program?

Since this program begins at home, anyone who wishes to learn the forging fundamentals of hand forging, or anyone who wishes to improve their skills may participate. This is an entirely voluntary program, with a suggested order in which to accomplish the lessons. Of course, if one wishes to concentrate on specific lessons, that is perfectly fine. However, persons who follow the program through its entirety will gain valuable insight and skills for whatever forging discipline they desire.

If you are serious about this craft you will join ABANA and support their efforts.

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Demonstrator/Instructor

Instructors Journal

entry identifying their personal training and certification. All CBA Instructor should use these pages to keep a journal

Enter each training and conference you attend.

help track your continuing education as required annually to maintain your instructor status. This will be useful for your own reference and as a log to

Cer	Certification	
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