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To: HABA Distribution List

Re: The Newsletter of the Proposed Houston Area Blacksmiths' Association (HABA)

INTRODUCTION

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CELEBRATE SMITHING IN TEXAS!

by Dave Koenig

Introduction

The July 1999 HABA meeting, held concurrently with Celebrate Smithing in Texas!, certainly needs to be at or near the top of the 'all time best meeting' list. Sixty-one people signed in and I bet we missed a few. Of the sixty-one, twenty-seven were smiths. Of these twenty-seven at least twenty- some got coal dust on them as they used one of the ten forges that were going Saturday and Sunday.

Smiths arrived from around Texas to build hardware for the new Barrington Living History Farm at Washington

on the Brazos State Park. Pat and Ann Cheatham came in from San Angelo with a complete forge. David Wilson and James Ryan came down from the Dallas area. James brought an old army cavalry forge with him. The entire forge folds up into a box. Ed Cotton, Tom Lundquist, John Soares and Lee Oates came in from the East Texas area. Ruth Carter, Charles Stolte and John Crouchet represented the Hill Country area.

Smiths from the Houston area included: Bill Parker, Tim Cowden, Bill Cade, Dave Koenig, Jim Wheeler, Harvey Wise, Kip Coe, Larry Newbern, Larry Hickman, Jesse Kirk, Reynolds Cushman, Larry Hoff, Sharon Heathcock, Charles Heathcock, Frank Walters, Tim Bailey Troy Stallones and Dean Arnold.

Objectives

The objectives of Celebrate Smithing in Texas! were to promote blacksmithing in Texas and to contribute hardware for the buildings and fences of the New Barrington Living History Farm at Washington on the Brazos State Park.

Blacksmithing in Texas was certainly promoted. Two TV stations and two newspapers spent time interviewing people and prepared spots and articles about smithing, the hardware being made and the new Barrington Farm. Many people got their names and/or pictures on the airways and in newsprint. The papers were the Houston Chronicle and the Navasota Examiner. The TV stations were KTBX Channel 3 in Bryan-College Station and Northland Cable. Each piece was well done and complimentary to the craft, the people and the work being done.

With regard to promoting smithing in Texas it is hard to beat the turnout. Texas smiths from around the state came to build hardware, donate their time, talent and materials and to demonstrate their support for Texas smithing.

Special Guests

A very special guest, Mr. Andrew Sansom, Executive Director of the Texas Parks and Wildlife, stopped by Saturday afternoon. Mr. Sansom was in the area for another meeting with a group of Texas Legislative Aides. He brought his guests to the park and they got more than they expected, a group of people smithing for all Texans.

Mr. Sansom and his guests hopped boards across the muddy drainage area to get to the farm, enjoyed the mid-nineties heat and humidity, watched all of the smithing activities and a few received one of the remaining HABA/Barrington Farm bandanas. They even got a good demonstration of how iron can burn while demonstrating for guests....and an invitation to observe the other smiths who did not seem to be burning anything up!

Completed Hardware

Some of the completed hardware was displayed during the weekend. Larry Newbern presented the fireplace crane. It is a beautiful piece of work. Gary Hilton of Hunt, Texas made three pair of hinges and sent them to the park. He made a pair of twenty seven-inch hinges and two pair of sixteen-inch hinges. Ed Cotton brought a completed set of twenty seven-inch hinges. As I recall there were hasps and hooks from Charles Stolte, Jim Wheeler, Tim Cowden and Paul Koenig. Tom Lundquist, who is making all the nails for the project brought all the large nails and some of the smaller nails.

The following people agreed to make the remaining hinges for the project by September 1. The twelve-inch hinges will be made by: Charles Heathcock, Frank Walters, Jesse Kirk, Harvey Wise, John Crouchet, and Kip Coe. Charles Heathcock, Tom Lundquist, Dave Koenig, David Wilson, James Ryan and John Soares agreed to make the sixteen-inch hinges.

The remaining two pair of twenty seven-inch hinges will be made by Larry Newbern. Larry will copy each of the pairs donated by Ed Cotton and Gary Hilton. Ed and Gary's hinges were just different enough not to look like a pair. Larry volunteered to solve that problem by making another pair of hinges of each design. Now when the two pair of hinges are mounted on the smokehouse and on the fence gates of the Anson Jones house, the hinges will match.

Please Note! Additional hardware anyone would like to make and contribute to Barrington Farm will be graciously accepted and used. New farm buildings are on the drawing board.

Corral Gates

The weekend had a special project too. The special project was to design and build the hinges to go on the double corral gate right behind the barn. This gate is going to see a lot of activity. All the farm animals will pass through it and the gate will be a perfect place for the kids to get a better look at the animals.

Dennis Cordes, the Parks and Wildlife architect from Austin, David Wilson and Ed Cotton got their heads together and came up with a unique, functional and period hinge for the corral gates. David and Ed got things started with the corral hinges about mid-day Saturday. By Saturday night a lot of progress was made on the top straps and pintles. Several others were involved with the hinges Saturday too. On Sunday morning the straps were finished and the pintles for the bottom of the gates were completed. David Wilson and Larry Newbern lead the charge Sunday morning.

Sunday noon Celebrate Smithing in Texas! came to a formal conclusion. Some had lunch delivered to the forging site at the barn by the park restaurant and worked on. Some others ate and started to pack for the long drive home. By this time it was obvious that we could install the corral hinges with a little more work. The little more work included Bill Irwin, the Barrington Farm Manager going to a downed bois d'arc and bringing back two pieces. The bois d'arc would be the foundation for the corral gates. The bottom pintle and bottom of the corral gate would rest on the bois d'arc.

James Ryan went to his truck and brought out a drill and many other hand tools that allowed us to start installing the corral gates. James got to work with his drill and chisels to start the installation. Frank Walters joined the installation team. The wood chips started to fly. The wood and iron got closer and closer together. One eye was kept on the sky. The afternoon showers were on the way. There were dark skies and thunder to the southeast. A few of the tents were still standing. Some people packed and worked on the corral gates too.

Installation was going along as planned and the thunder and lightning was coming closer and closer. No one verbalized it but the corral gates were going to be completed before everyone left. The humidity seemed to go up a notch or two along with the temperature. Everyone was sweating just a little more than usual. The first half of the corral gate got swinging about 2:00. The challenge was right in front of us. Get the second half of the corral gate swinging. We are almost there! Get packed up if possible. Lend a hand wherever possible. And, beat the looming afternoon rain which was shaping up to be more than a just shower.

About 3:00 the second half of the gate was swinging too. Everyone but James Ryan was packed-up. James' priority was on the gate. Everyone who remained at Barrington Farm was quickly called for a group photo at the swinging gates. Frank Walters got the picture as the rain started.

Meetings

There were two meetings during the weekend. One at 10:00 Saturday morning got us started. Bill Irwin and Dennis Cordes oriented everyone to the park and to the project. It was a great start. Helen Wise and Bill Irwin got a group picture too.

The second meeting got underway about 5:00. There were two agenda items. The first was to talk about the day's progress and the prospect of contributing to the State of Texas in a similar manner next year. The consensus was Celebrate Smithing in Texas! was quite worthwhile and we should look for another project at another park next year. HABA will keep in touch with Parks and Wildlife and pursue another opportunity.

The second agenda item was a general discussion about a regional smithing conference. After discussing the issue for about 20 minutes there was a consensus. The consensus was that the idea of a regional smithing conference including the states of Texas, Louisiana, Oklahoma and Mississippi has merit. Those interested in developing the concept agreed to start talking via e-mail.

A regional conference is a huge undertaking. The concept needs to be developed and interest in the concept needs to be generated among smithing organizations within the region. This is a new idea and any input from individuals and organizations is welcome. The meeting adjourned about 5:50.

After the meeting everyone brushed off as much dust and dirt as possible and made their way to the new park restaurant. There the Friends of Washington on the Brazos State Park treated everyone to a wonderful BBQ dinner. There was more than enough food...It tasted great. The air conditioning felt really good. We all had a chance to relax a little and there were no speeches.

After dinner some people headed home and others headed back to the forges. Harvey Wise provided some extension cords and additional lights to make forging into the night a little brighter. Forging, comparing smithing notes and solving the world's problems went well into Saturday night.

Thanks

Anyone who set foot on Barrington Farm on July 17 and 18 contributed to a very special occasion. Each person who showed up went way out of their way literally and figuratively to make a contribution to the State of Texas and to promote the art and craft of blacksmithing. We all deserve a big thank you from each other and here it is. THANK YOU!

Some people also need a Special Thanks. These individuals went the extra mile to make Celebrate Smithing in Texas! extra special. Here they are:

To Bill Irwin, Kristin Kramer and Dennis Cordes of Texas Parks and Wildlife for extending the invitation, sharing their knowledge about period hardware and making our stay at Barrington Farm almost effortless.

To Gary Hilton, Larry Newbern, David Wilson, Tom Lundquist, and James Ryan for picking up more than their share of the forging required for completing this job.

To everyone who brought a forge: Frank Walters, Charles and Sharon Heathcock, Jesse Kirk, James Ryan Tim Cowden, Jim Wheeler, Larry Hoff, Larry Newbern, Dave Koenig and Pat and Ann Cheatham.

To Frank Walters who financed, designed and silk-screened the t-shirts for sale and the Barrington Farm and HABA logo bandanas that were handed out to all the smiths.

To Harvey and Helen Wise who provided shade, tables, lights and all kinds of additional odds and ends that we seemed to need during the weekend.

To Marilyn Koenig, Christina Okorn and Helen Wise for getting everyone signed in and started off on the right foot.

It was a great event!

ARTICLE

POWER HAMMER REBUILD

By Fon Stonum
Part 3 of 3

This third part, of my power hammer rebuild article is a long time coming. With a full time job and school at night, three days a week, there is little time for the things I really want to do.

As a recap of part two, I had the bearings babbitted, the parts purchased, and I was starting to reassemble the vast array of parts and pieces. Looking at it from that point of view I thought it was going to be a downhill slide to getting hot iron between the dies. I could just see the quality work and ancient magic flowing from the doors of my shop. Then reality set in, and as I started clearing the floor of parts and pieces and stacking them on the frame of the hammer, I realized then that it was going to be a long, strange trip to seeing sparks flying from between this set of dies. What follows is an odyssey of file marks and grinder dust that is the re-assembly of this smith's 50# Little Giant.

Before you start assembling all the parts a good idea is to put the hammer where you want it to stay before you add another couple hundred pounds to it and then have to move it around. I mounted my hammer on a 1 inch thick piece of steel plate about 2' X 3' in size. At this point it is not bolted to the floor because the concrete is rather soft in my shop and I want to see if it will work OK without being bolted down. If it walks or seems to be losing the power to hit, I will tear up a piece of floor, put new concrete down and bolt it securely down. It is where I want it as far as position goes.

Assembly started with the crankshaft and clutch hub going back on the frame in my newly poured bearings. My clutch is one with the leather belting on the outside of a sheave and the sliding friction pulley slides in and out over this leather to provide the friction and clutch operation. The leather was in good shape and I did not have to replace it. With all the times it moved from place to place through the shop, it is a minor miracle the leather remained in good shape. I cleaned the dirt and slag that attached itself to the leather during the down time. About this point is where you wish you had a good gantry or some type of overhead crane. I cling and jerked that crank plate, shaft, and clutch up into the bearings by myself, but don't recommend this approach to everyone. There is nothing lightweight about any part on one of these hammers, so plan to have a friend over if you have no overhead lifting gear. This will not be the only time you have to wrangle that monster up into position. Once the shaft was in the lower bearings, I put the caps on and shimmed the cap to allow the shaft to turn freely. Little Giant sells really neat shim material that is die cut and highly adjustable. I recommend these shims as a must have item. Once all the adjustment was complete, I swapped out the old square head nuts for hex head, ny-loc nuts, just to bring the hammer into the 20th century. I used these ny-loc nuts on the ram guide too. I then oiled the bearings and hand spun the crank admiring my work and checking for galling or hard spots in the turning.

Once the top end was installed, I started assembling parts on the front of the hammer. I put the ram and guide on and shimmed it to a loose fit, with no extra movement. Once again I used Little Giant's shims between the ram guide and frame. I started to put the toggle links together on the cross head and found I needed to fit these parts, so I carefully ran the toggle links across the belt sander to reduce the thickness and filed and sanded the cross head. The crosshead I used was the original head and I had welded the pinholes and had the holes rebored. I neglected to realize that the inside surfaces of the cross head, where the toggle link fits were worn as well. So the slot where the links fit was wallowed out at the bottom on one side. Filing this to square the sides made the cross head gap too wide, so now I'm going to have shims made of brass to tighten this gap up and also give a bearing surface rather than steel to steel.

Had I realized this problem before I would have built up the worn area, and had it milled square at the time I had the holes rebored. Yet another lesson learned...! But to get the hammer operational I will let that go for now and do that after all other work is complete and I fine-tune the whole machine. After the front end was assembled, I hand turned the crank and everything seemed to go up and down and in and out as it should. Moving right along I concentrated on the clutch linkage to the foot ring.

The foot ring was in good shape so no work was required to make it work. I installed it and put the pin in the heel of the frame to find that it was wallowed out and very sloppy. Sid Suedmeier, of Little Giant recommends a tight fit here to remove slop in the clutch operation. I called a friend, with a lathe, and had an oversized pin made for this and I bored the frame hole out to accept the bigger pin. I also added a grease fitting to the frame to be able to lube the pin.

Once I got the ring pivot tightened up I built a shifting fork to operate the clutch. I bored out the pivot hole here too and built an oversized pin. The amount of slop is not too critical here as in the bottom pivot, but I tightened it up some at the same time. Once the foot ring and clutch fork were in place I built a link between the two using 3/4" pipe and a half-inch turnbuckle. The turnbuckle is very sloppy and allows the link to buckle slightly in the middle. I got it tightened up some but will likely remove the turnbuckle and build a new one that is tighter than the hardware store variety. There is no need for any slack in the linkage and the turnbuckle is for length adjustment only. Any slack in the linkage will make the operation sloppy. When the clutch is working you reached the point where operating the hammer by hand is counter productive and a motor is required. Besides that, it is awfully hard to hold hot iron and hand operate the hammer fast enough to do any real good work

I elected to mount the motor on top of the hammer, rather than on the side. The biggest reason was that the amount of space available in my shop, from chest high going up is greater than from chest high going to the floor. Other considerations are the belts and motor pulley are out of the way. Side mounting a motor would require a guard over the belts and pulley to keep my loose clothes, and me, out of them.

I had no idea what I needed, as far as a motor mount, so I just started building from the motor base down. I built adjustable plates under the motor for belt tightening, then started from the bearing cap bolts and built a pedestal over the clutch. This bolts together to allow removal and installation. I set the motor on the top of the pedestal and pondered the position of the belts on the friction pulley. Being made for a flat belt and line shaft drive, the belt drive can hit anywhere on the 8 inch wide friction pulley, but the optimum place for the belt to ride is on the front half of the friction pulley. This position helps the clutch disengage during operation.

I lined up the belts over the front of the friction pulley, when the clutch is disengaged. Now, when the clutch is engaged the belts are slightly out of alignment with the motor pulley and aid in the disengagement as the belts line back up with the motor pulley. I welded the motor adjustment plate to the pedestal and measured the distance for belts. I used a double belt pulley on the motor and two 5L V-belts to drive the hammer.

Motor pulley size and speed consideration is critical on these hammers and careful calculation is necessary. Richard R. Kearns book, The Little Giant Power Hammer describes in detail the selection of motors and drives for these hammers as well as the calculations for speeds. After a couple trips to the supply house, I got the right length of belts and got them installed after twice having to remove the whole motor assembly, clutch assembly and crankshaft to get the belts on. About here is where I decided that overhead gantry would be a real good idea in my shop. Once I got the whole thing back together and the motor wired up, I got to turn it on and bring life to the hammer.

I plugged the hammer in and it started hammering involuntarily and the clutch would not disengage. I tinkered with it awhile and then flashed on the fact that the clutch needs to be oiled so I shot some light motor oil on the leather and it finally disengaged. I fired it up again and let it run awhile to spread the oil around and re-oiled all the moving parts, which nearly amounts to pouring a bucket of oil over the entire machine.

I engaged the clutch slowly and watched the movement. The ram toggles needed tightening on the spring to make the ram strike right and I noticed the new ram was coming up so far that it hit the crank plate. I shut her down, removed the ram and cut off about 3/4 inch from the frame side "vee" to give clearance under the crank plate. I reassembled the unit and started her up again, this time all moving parts seemed to run in some resemblance of harmony. I installed the dies and put a wooden 2X4 between the dies to aid in the adjustment of the crosshead on the pitman, which provided your stroke distance. At this point I hammered the 2X4 into toothpicks and started looking at the fine-tuning.

I am now building the shims to go between the toggle links and cross head, shims for the pitman arm to crank pin

alignment and a shaft shim to stop the forward travel of the whole crank shaft when the clutch is operated. Once I get the slop out of these areas, the fine-tuning should only be spring tension adjustment and die clearance adjustment. This should put the hammer in the same category as a Swiss watch.

I also built a guard to cover the front of the machine. If the spring should break during operation the shrapnel could easily put holes in your body and ruin your day. I built my guard out of expanded metal and angle iron. It is easy to remove and to get to the front end for adjustment. I also installed the motor switch in front of the ram guide. This makes it accessible without having to reach around the machine.

Now that this baby is finally in working order, I have visions of Yellin, and the other Old Ones, guiding my hand and metalwork flowing from my forge, if I can just remember where I put that bag of coal.

RESOURCES

METALWORKING TITLES

by Chuck Hamsa
(Revised, May of 1999)
Part 2 of 5

The following titles represent a few of the titles that this writer reviewed; first as an individual and then as coordinator for a reviewers' consortium. The consortium is simply a group of people who enjoy telling others about good books and other materials over a wide range of subjects. Most of these subjects deal with American life and history and crafts and occupations from the seventeenth through the nineteenth centuries.

Googerty, Thomas F. PRACTICAL FORGING AND ART SMITHING.
Lompoc, CA: Norm Larson Books (5416 East Highway 246, 93436). Reprint of the Bruce Publishing Company 1915 edition. Paperbound. 144 Pp. \$11.95.

For years Bruce Publishing Company was one of the standard "hands-on" publishers producing titles of importance for the industrial and vocational arts interests. If one might make a comparison to contemporary publishing, Bruce would probably resemble the Goodheart-Wilcox Company, which is well known for its wide range of titles on the industrial arts scene.

This would be a suitable choice for anyone interested in learning about the tools, equipment and general blacksmithing techniques. It includes also a discussion of electric and oxy-acetylene gas welding. A portion of the title deals with art smithing. Included is a series of exercises for the construction of such things as latches; cabinetry hardware; decorative lanterns, lamps, cutlery and cookware; hooks and knockers. If anything else, this title would be a very fine idea book on what the reader might make as well as a good title with projects to help the blacksmith perfect his talents.

HAND MADE HAND TOOLS.

Austin, TX: Lost Data Press (4410c Burnet Road, 78756), 1979. Hardbound. 240 Pp. Unfortunately out of print.

Similar to THE BOY MECHANIC, this title is a wealth of information compiled from articles between 1890 and 1948. Serving as a source of ideas for making a great many tools and other items, HAND MADE HAND TOOLS is a treasure trove of ideas for metalworker and woodworker. Included is a more than adequate index.

Harper, Peter; and Godfrey Boyle. RADICAL TECHNOLOGY.
New York, NY: Pantheon Books, 1976. Paperbound. 302 Pp. Unfortunately out of print.

A wealth of information is within the confines of this title. Readers have to get by the "commune flavor" of this title before they realize that there was considerable research in the preparation of this title to bring to the reader a wide range of knowledge for a large number of arts and crafts, self-reliant living, woodworking, metalworking, etc. It was far ahead of its time in presenting ways to recycle many things into usable items around the homestead.

Kilby, Kenneth. THE COOPER AND HIS TRADE.

Fresno, CA: Linden Publishing Company (352 W. Bedford, No. 105, 93711 [800] 345-4447), 1989.
Paperbound. ISBN Number 0-941936-16-3. \$19.95.

Part of the blacksmiths' trade was to provide a variety of tools for a number of early occupations. For a description of the coopers' tools and products, this would be an excellent choice.

Leland, Charles G(odfrey). METALWORK: BENT IRON WORK, CUT WORK, NAIL WORK.

Lompoc, CA: Norm Larson Books (5426 East Highway 246, 93436), c1894. \$9.95

A strong part of Leland's METALWORK is working with cold metal to produce both artistic and practical decorative and industrial art. This title is a fine example of the efforts of Norm Larson to find those titles that would be of interest to a wide range of metalworkers.

McCreight, Tim. THE COMPLETE METALSMITH: AN ILLUSTRATED HANDBOOK.

Worcester, MA: Davis Publications, Inc.(50 Portland Street, Worcester MA 01608, Dist. by Sterling Publishing Company, 387 Park Avenue South, New York, NY 10016-8810), 1991. Rev. ed. Paperbound. 189 Pp. ISBN Number 0-87192-240-1. \$18.95.

The most successful blacksmiths that this writer sees incorporate techniques of jewelry making into their production. For anyone desiring information on the techniques of the artistic side of blacksmithing, THE COMPLETE METALSMITH would be a fine selection. While many of the operations could not be done by the blacksmith, who obviously works in a larger medium, it is worth the effort to incorporate as many of the techniques as possible for the aspiring artisan to perfect his (or her) talents.

The first edition was so packed with information that it was at times difficult to read. In the revised edition the author highlighted the main points to help the reader grasp important details. A spiral binding makes the title easy to open and digest while the reader is doing a particular task. Both editions have a darkened tab system on the pages' edges to denote sections in the text for such areas as tools, casting, shaping and surfaces.

Martinie, Henri. ART DECO ORNAMENTAL IRONWORK.

New York, NY: Dover Publications, Inc. (order from 31 East 2nd Street, Mineola, NY 11501), 1995.
Paperbound. 106 Plates. ISBN Number 0-486-28535-9. \$9.95 plus \$3.00 shipping and handling.

This is an example of the wide range of reprinting efforts by Dover Publications. Write for a complete catalog of publications. The origins of the term, Art Deco, came about as a result of a 1925 design exhibition in Paris. The influence of this extravaganza, featuring decoration and ornamentation in all conceivable mediums and applications brought about the Art Deco movement. Dover was fortunate enough to obtain two portfolios of Henri Martinie in which he focused on such things as smithed balconies, gates, screens, grills and other architectural adornment. Thus, for a very nominal cost, readers have a tremendous photographic access to much of the Art Deco oriented ironwork featured at this most famous event. Such a title would be of importance to both architects and ornamental ironworkers. The total exhibition is available from a reprint publisher in a multi volume set. The price tag for the books is over \$1,000.00.

"Metalworking..." in BACK TO BASICS: HOW TO LEARN AND ENJOY TRADITIONAL AMERICAN SKILLS.

Pleasantville, NY: Reader's Digest Association (Dist. by Random House, 400 Hahn Rd., Westminster, MD 21157. [800] 733-3000), c1981. Hardbound. Pp. 344 - 361 of 456 Pp. book. ISBN Number 0-89577-086-5. \$26.00.

BACK TO BASICS represents old time ways of doing this and that with the aim toward individual independence. The metalworking section covers basic tinsmithing and blacksmithing. Of particular importance are directions on building a forge out of a brake drum. Also covered is basic information on tools and making one's chisels. Included is a glossary of technical terms, instructions on making a nail header for the production of nails and various forging processes. The value of this title is that it includes so many aspects of independent living, such as old time arts and crafts; alternative forms of energy; growing, harvesting and storing one's own produce and old time ways that our ancestors entertained themselves.

Plummer, Don. COLONIAL WROUGHT IRON: THE SOBER COLLECTION.

Ocean Springs, MD: SkipJack Press, 1999. Order through BookMasters, Inc., PO Box 388, Ashland, Ohio. (800) 247 - 6553 for credit card orders. Internet: <http://bookmaster.com/skipjack>. Hardbound; 244 Pp. ISBN Number 1-887935-16-5. \$44.00 plus S&H.

This book highlights the Jim Sobers magnificent collection of a wide variety of ironwork in this photojournalistic coverage. This is a worldwide coverage of all forms of blacksmithed items, ranging from functional American frontier items to European-based ornate works of art.

Schwarzkopf, Ernst. PLAIN AND ORNAMENTAL FORGING.

Lompoc, CA: Norm Larson Books (5426 East Highway 246, 93436). Reprint of the John Wiley and Sons 1916 edition. Paperbound. 267 Pp. \$13.95.

This is an outstanding book. It is a wealth of information in the choice of equipment and correct handling of tools. Schwarzkopf covers a wide range of information through a series of exercises. These projects take the reader from the basics of how to correctly use hammers to intricate ornamental ironwork, termed advanced forging techniques and art forging. Illustrations are outstanding and add much to the reader's understanding of the text. Included are sections on tempering and the production of basic tools.

Smith, H. R. Bradley. BLACKSMITHS' AND FARRIERS' TOOLS AT SHELBURNE MUSEUM: A HISTORY OF THEIR DEVELOPMENT FROM FORGE TO FACTORY (Museum Pamphlet Series, Number 7).

Shelburne, VT: The Shelburne Museum, Inc. (05482), 1988 (c1966). Paperbound. 271 Pp. ISBN Number 0-939384-07-8. \$9.50.

This book would be an excellent selection to see a wide range of tools of the blacksmithing and farrier trades. Calling it a "pamphlet" is not doing it justice. Shelburne Museum also has number 3 in its pamphlet series, a 79 page paperback covering its woodworking tools. The price for that title is \$7.95.

Spring, LaVerne W. NON-TECHNICAL CHATS ON IRON AND STEEL AND THEIR APPLICATION TO MODERN INDUSTRY.

Bradley, IL: Lindsay Publications, (PO Box 12, 60915), 1992 (c1917). Paperbound. 358 Pp. \$14.95 plus .75 shipping.

This is one of the best books on the history of iron as well as why heated iron does certain things. This is one of the few books that attempts to give a layman some understanding why iron loses its magnetism when heated to a particular temperature. Coverage includes a wide range of metals, including wrought iron.

United States. Bureau of Naval Personnel. TOOLS AND THEIR USES.

New York, NY: Dover Publications, Inc. (Order from 31 East 2nd Street, Mineola, NY 11501 [800] 223-3130), 1973 (c1971). Paperbound. ISBN Number 0-486-22022-2. \$5.95.

The initial U.S. Government document quickly went out of print. Sensing a demand for this title; Dover reprinted it, offering the title at a very inexpensive cost. The value of this title is that it presents an outstanding set of instructions to help anyone correctly and safely use a wide variety of hand tools. As such, it would be excellent for anyone in working with youth.

Walsh, Ronald A. MCGRAW-HILL MACHINING AND METAL WORKING HANDBOOK.

New York, NY: McGraw-Hill (1221 Avenue of the Americas, 10010 [800] 262-4729), 1994. Hardbound. ISBN Number 0-07-067958-4. \$76.40

This is an outstanding title for a wealth of information on all forms of metalworking in addition to technical data on a wide range of metals. It may not be cheap, but neither is the time spent for metalworkers to get information on one metal or another.

AUGUST 21, HABA MEETING

The August HABA meeting will be held at the new C&S Forge in Dobbin, TX. Things will get started about 9:00.

Charles and Sharon Heathcock report the new forge construction is progressing well. The roof is on and the walls are going up. It will be ready for the August meeting.

Ed Cotton from Huntington, TX will be the featured demonstrator. The focus of his demonstration will be on the basics of smithing. Ed will start with the fire and progress from there. Ed is a really good demonstrator. Even those of us who think we know a thing or two will pick-up or at least be reminded of things we know we could do better.

Charles and Sharon said that anyone who wanted to bring a forge was welcome to do so. They also said they will provide lunch. It will be hot of course so bring any special drink you would really like to have. HABA will make sure there is water and soda available.

Do not forget to bring your safety glasses!

Directions to C&S Forge.

From the North side of Houston, go North on interstate 45 to Conroe. At Conroe go West on state highway 105 about 20 miles. You will go by beautiful Lake Conroe and the town of Montgomery. (Montgomery is loaded with small shops.) About five miles West of Montgomery you will come to the town of Dobbin. There is not much to see in Dobbin while passing through on 105 so you need to pay attention about now.

There will be a caution light. Slow down and continue through the caution light on 105 because you will be making a left hand turn. Continue up the hill past the caution light to Mount Miriah Road. Turn left on Mount Miriah and go south. The C&S Forge will be at the second drive on your left. You will not be able to miss it. Sharon will have signs out, the dogs will be barking and there will be a lot of other cars trying to get into the driveway!

From the West Side of Houston, go Northwest on state highway 249 through Tomball, Decker Prairie and Pinehurst. This should all sound familiar because it is the way to Tudor Forge. When 249 ends at Pinehurst, continue Northwest past the turn to Tudor forge on FM 1774 all the way to Magnolia. FM 1774 will "T" into FM 1488 in downtown Magnolia. Go right at the 'T' across the tracks and turn immediately to the left and continue Northwest on 1774.

Continue Northwest on 1774 two miles or so to the first road on the right, FM1486. Turn right on FM 1486 and go North about twelve miles to 105. Turn left on 105 and go towards the top of the hill. Make a left turn on Mount Miriah Road. The C&S Forge will be at the second drive on your left

SEPTEMBER 18 MEETING

The September 18 meeting will be held at Tudor Forge near Magnolia, TX. More specifics will be in the next August HABA Letter.

COMING EVENTS 1999

September 11-12 - HAMMERFEST '99 – The 11th annual conference will feature Michael J. Saari from Woodstock, CT. For more information, contact Registrar, Verl Underwood, 613 N. Bailey, Ft. Worth Texas, 76107-1005. (817) 626-5909. Email vaunder@aol.com.

September 25, - Texian Days – Fanthorp Inn State Park is celebrating its 12th annual **Texian Days** . If you have an interest in demonstrating smithing, call Jo Frances Greenlaw, Park Superintendent, at 409-873-2633.

October 1, 2 and 3, - The Oldenberg Blacksmiths –. Blacksmiths around Texas and the U. S. will have an opportunity to sell their wares on a five-acre plot of ground near Oldenberg, TX. For more information about this developing event call Frank Walters, 713-896-7566 or Larry Hoff, 281-890-8822.

October 2 and 3, - Banging on the Bayou – 6. The Louisiana Metalsmiths' Association sponsors this event. The demonstrators will be Bob Bergman and Jim Hrisoulas. Contact John Perilloux for more information, 504-542-4346.

CORRAL GATES
Barrington Living History Farm at Washington on the Brazos State Park



The people in the photo are: Bill Irwin, Jim Wheeler, Larry Hoff, David Wilson, John Soares, James Ryan, Dave Koenig, Russell Cushman, Charles Heathcock, and Frank Walters behind the camera.

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