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To: HABA Distribution List

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

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A NOTE FROM THE PREZ

A lot of smithing activity took place the last couple of months and things look even busier in the future.

HABA Meetings

Larry Hoff and Larry Hickman organized the March meeting at Jesse Jones Park. The April meeting took place at Tudor forge and the May 15th meeting is scheduled at Tudor forge too.

Doug Hendrickson's Demo

Jim Wheeler and I went up to Canton, TX to watch Doug Hendrickson demonstrate for two days. Doug is a great demonstrator and teacher. The 'Dancin Hammers' article below shares some of what we learned there. I also plan to demonstrate some of Doug's work at the May HABA meeting.

Doug's demo was also a great opportunity to meet members of the North Texas Blacksmith's Association and the officers face-to-face. They helped HABA quite a bit during the last year or so.

TAMU Demo

Larry Newbern, Troy Stallones, Jim Wheeler and I spent a day at Texas A&M University demonstrating smithing in the middle of the campus. Our demonstration was an adjunct to the contemporary forged metal exhibition titled *Earth Fire and Water*. I have to admit that it was quite a thrill to be on campus, to see all those young men and women spending time in front of the fire and to look into the gallery windows. Through the glass I could see the work of Tom Joyce, Nana Showalter, Elizabeth Brim, Don Asbee and twelve other great smiths. It is hard to imagine a more invigorating setting to show people what can be done with hot iron.

During lunch Tim Cowden tore himself away from his computer on campus and started demonstrating while I went to lunch. Another HABA member who works on campus and who we do not see often enough, Greg Allen, stopped by to talk too. It was really good to see him again.

Cathy Hastedt, Curator, Beverly Wagner and volunteers from the J. Wayne Stark Galleries helped us with everything while on campus. Their hospitality throughout the day made set-up, parking, and getting around campus a snap and the time with the audience more fun.

There was one more item of note that happened to me while demonstrating. Not one single person told me their grandfather was a blacksmith. This is a first. I am sure it is a sign of the times.

Barrington Farm, Washington on the Brazos State Park

The State of Texas asked HABA to forge the hardware for the doors, shutters and, gates for the new living farm. This is a great opportunity for HABA to take on a group project and return a little to the State of Texas. This may also be an opportunity to get other smithing organizations in Texas involved in the project. Since this is the birthplace of Texas, I imagine other smithing groups would be happy to contribute.

More information about the invitation is included in the May Meeting section below. I just received the hardware plans from the state. They will be available for your review at the May HABA meeting.

The Oldenburg Blacksmiths

Blacksmiths across Texas, Louisiana and all points from there have an opportunity to sell their wares the first weekend of October in Oldenburg, TX. Five acres of land is being made available to blacksmiths during the famous Round Top Antique Show. The Round Top, TX antique show expanded over the years to include the neighboring towns of Warrenton, Shelby, Oldenburg and a few other places in between. The show occurs in April and October each year.

Oldenburg is located about 90 miles northwest of Houston. During the weekend over 1,000 vendors sell and 200,000 buyers enjoy the shows, buy and drive the beautiful countryside.

The owner of the property has an interest in smithing and played in the Oldenburg blacksmith shop while growing up. The original site of the Oldenburg shop is just a few stone throws away from the five-acre site. The original Oldenburg shop is now operating again at the George Ranch Historical Park south of Houston.

Larry Hoff, 281-890-8822 and Frank Walters, 713-896-7566, are coordinating this function with the landowner. This selling opportunity for blacksmiths has the potential to grow into a significant smithing event two times per year. The site will be advertised as The Oldenburg Blacksmiths. Call Larry or Frank for more information and to get you name in the hat for the event.

DANCIN HAMMERS

By Dave Koenig

Doug Hendrickson of Lesterville, MO, production blacksmith, artist, demonstrator extraordinaire, teacher, friend and my smithing mentor demonstrated in Canton, TX for the North Texas Blacksmith's Association. The April demonstration was called 'Dancin Hammers'.

Jim Wheeler and I drove up to Canton to watch Doug demonstrate not only his blacksmithing skills but his demonstration and teaching skills too. I hope to capture a little of the two-day workshop in words. You will have to provide the smell of smoke, the ring of the anvil and the at-home feeling we experienced at Blacksmith Junction by our hosts Dick and Stephanie Cook. The two-day event included some live entertainment atop Ole Mill Mountain and a great auction Saturday night. Bill Epps was the auctioneer. Bill will get you digging pretty deep for that last buck in the bottom of your pocket.

This was the first time for Jim and I to attend one of the NTBA functions. Charles and Sharon Heathcock encouraged me and other HABA members to get up there and enjoy the programs many times in the past. They were right. The officers Lud Pietz, David Wilson, Verl Underwood and Dick Green and all the members of NTBA know how to set up a weekend program.

It was also great for me to finally meet all of the NTBA officers. I met Dick Green here in Houston at our Nana Showalter and Bob Bergman demonstration. The other officers I communicated with over the phone and via e-mail. At one time or another HABA and I received good advice and a helping hand from each of them. And, we certainly appreciate it.

The cost of going to a demonstration across the state of Texas can be reduced quite a bit with a little planning and carpooling. With a little more planning we could even cut the hotel costs a bit by sharing that extra bedroom with out-of-town guests.

My experience with demonstrations is that there is a lot more going on than just learning how to shape hot iron. A person can pick up a lot of information on many other subjects some related to forging and some just related to being human. Traveling to a workshop or demonstration is a good chance to take a break, to think differently about the art and craft of smithing and to meet some new people with the same concerns and interests. Most people in my opinion pay a lot more in time and money to get a fraction of the information we can get from a two-day smithing workshop.

Doug spent Saturday morning demonstrating how to make a frying pan. Saturday afternoon he demonstrated a series of different forgings involving exotic twists, tinning copper, and forging several different items from the same basic forging process. Sunday morning he created a beautiful piece of sculpture called *Hanging Rocks*. Sunday afternoon he rode on airplanes before he began the two-hour drive home Sunday evening.

In this article I want to share some of the non-forging tips I remember from the weekend and describe how Doug made one of his famous frying pans. I plan to demonstrate some of the Saturday afternoon pieces at the May HABA meeting.

Tips Related to Forging

I would like to share some of what I learned and relearned from Doug that has nothing to do with forging iron.

- ❖ The next time you are near an art supply store buy some white charcoal pencils. Buy several of them and place them around the shop so you never have to go far to locate one. White charcoal writes on about anything wet or dry. I believe it works well on hot iron too. If you create a design with the charcoal and want to give it a fighting chance in the shop, spray it with hair spray. The hair spray protects the charcoal.
- ❖ Clean the scale off of a forged piece by soaking it in a mixture of 10 parts water and one part hydrochloric acid. Be sure to store the mix in a covered rubber or plastic container and outside of the shop. Keep it outside the shop to reduce the rusting of tools in the shop. Keep an eye on your work. You may not have much left if you leave it in the acid too long. Too long depends upon the temperature, the size of your work and the strength of the acid.
- ❖ REMEMBER TRIPLE A = Always Add Acid to water. There may be an explosion if this procedure is not followed.
- ❖ To season the inside of a new frying pan coat it with olive oil or Crisco and bake at 400 degrees until done...about 20 minutes.??????
- ❖ For a black hot wax finish on hot iron, mix the following in a double boiler outside in the open air:
 1. One gallon of pure boiled linseed oil.
 2. One half gallon of turpentine...the real stuff...the stuff that smells so good...the stuff that says Turpentine on the side of the can and may be hard to find.
 3. Two hockey puck size pieces of bees wax...the real stuff...the stuff that smells so good...the stuff you have

left over after you steal the honey from the bees.

4. One quart of polyurethane varnish...the new stuff... the stuff that stinks...the stuff you can get at any hardware store.

Mix all the ingredients in a double boiler until the mixture becomes a uniform texture. Let it cool. Apply it to metal when the metal goes from a blue to black oxidizing color. It works well on wood too. Only you do not need to bring the wood to a black oxidizing color. Ambient temperature will do just fine.

For a more liquid finish, split the batch described above and add one half gallon of turpentine to one half of the original recipe.

Be careful when mixing this finish over a heat source. Turpentine is flammable.

- ❖ Peck and Punch refer to one method of center punching a piece of metal. Here is how it works. First Peck at the punch with the hammer and see if the Peck mark looks good. If it does not look good, Peck the metal again. When the Peck looks good then Punch the metal. The reasoning here is that a Peck mark is a lot easier to ignore or change than a Punch mark.
- ❖ Make jump rings by wrapping a rod around a pipe cold. The size of pipe determines the size of the jump rings. Slide the spiral off the pipe. Scribe a line down the length of the spiral and cut on the line with a hacksaw. The rings will just fall off.
- ❖ When cutting iron with a chisel, drag the chisel towards you so it is easier to see where you are cutting.
- ❖ Look at the negative space being created by a forging as well as the positive space. In some cases, the negative space may be more important than the positive space. For example, can you forge a ring without the hole?
- ❖ Postcards make a good catalog. A postcard catalog is very adaptable. For example, let us say you have 10 production items. You obtain some really good pictures of your work and send them to the National Postcard Company. For about a \$1,000 investment you will receive 500 copies of each of your 10 production items. Collate the cards you think your customers would be interested in, and send them 'Your New Catalog'. As you add items to your production line, you can update 'Your New Catalog' for 500 customers for about \$100. To delete an item remove the postcard for that item and you have 'Your New Catalog'.

Forging a Frying Pan

The frying pan was one of Doug's production items until just recently. The pans are labor intensive and his margin was low relative to the rest of his production line. He says the pans were his 'lost leader'. You will not find frying pans in Doug's new postcard catalog.

Doug makes his pans over a pan template that fits in a post vise. The source of heat for this forging is a torch. The template was machined out of a solid piece of mild steel. He showed us several ways he made templates for his pans but the solid template is the most productive.

The pans are made out of ten-gauge mild steel. The blank is centered on the template using a mark on the head of the hammer. Once the blank is centered, it is clamped to the template with a big homemade C-clamp. This big C-clamp has room for the hammer to reach all the way around the template. The pan template and the C-clamp are one unit.

The first step in the forging process is to clinch the blank to the template at four corners. Make the first and second clinches on opposite sides of the pan. It is important never to strike the blank at the corner of the template. This thins the wall of the pan in the corner and leaves an unwanted hammer mark.

Clinching the pan to the template is pass number one. There are two more passes. The second pass sets the bottom part of the pan wall against the template. During this process the top edge of the pan wall will begin to look like a fluted bottle cap. Make an effort to control the ridges. Keep them about the same height and evenly spaced. Let the metal tell you how far it should be forged on this pass.

As you can imagine, there is a lot of experience and feel that goes into this forging. A lesson here for me is not to overwork one area. Think about moving the metal a little at a time. When you are forging the side of the pan you are upsetting a lot of metal around the template.

The final pass will flatten out the ridges of the 'bottle cap' effect you created. In this pass you see quite dramatically how much you are upsetting the side of the pan. Begin the pass by heating the top of a flute. Make sure the point of the flute is the hottest and the wall of the flute is at a forging temperature. Forge the top edge of the flute towards the template first then each of the flute sides. When you finish a flute, a small part of the side of the pan is complete.

Do not start forging on the adjacent flute. Skip one flute and begin the forging process again. Continue this process until the

side of the pan is formed against the template.

The top edge of the pan will look pretty rough when the forging is complete. The bottom of the pan will be completely flat and without hammer marks.

The next step is to create a clean edge for the rim of the pan. Doug has a wooden template that sits in the bottom of the newly forged pan. The wooden template is a gauge to guide his plasma cutter around the rough edge. After the plasma cutter, the new edge can be cleaned up and rounded with a file or sander.

The pan is now forged. The next step is to put a handle on the pan.

Doug's handles are functional and really compliment the pan. The handle is made from a piece of square stock, three-quarter inch as I recall. The stock is split in half one inch from the end of the stock and spread to fit the side of the pan. Behind the boss formed by the split, twist the square stock one and one quarter turns. Now the top edge of the square stock will point to the top edge of the pan.

Forge a good-looking taper in the square stock from the twist towards the end of the handle. The overall length of the handle should be right at seven inches.

The next step is to add a little magic to the handle.

The magic is to flatten the top and bottom corners of the tapered square. Control the flattening on each side by turning the taper over. You will only be able to strike two of the six sides. If you never made this form before, I think you will really like it and find other uses for it. It just seems to flow and almost forces the viewer to figure out what is happening.

At the end of the handle forge a small eye. In the eye put a one-quarter inch round jump ring. Make the eye and jump ring look in proportion.

The handle now needs to be riveted to the pan. Look for a place on the pan that you do not particularly like. This is the place to add the handle. Drill one quarter inch holes in the pan handle boss. Hole a one size over makes alignment easier. Line up the boss to the side of the pan. Mark one hole. Drill it and then mark and drill the second hole. Counter sink the rivet holes on the inside of the pan with a counter sink bit or a one half-inch drill bit. Rivet the handle to the pan. Be sure to leave enough rivet length to fill in the counter sunk rivet holes.

The pan is now forged and fabricated. The next step is to clean it up and make it serviceable for food.

Doug sand blasts his pans and then buffs them with a wire brush to get a shiny finish. The handle and outside of the pan receive a black oil finish and the inside of the pan gets seasoned with olive oil.

You now have a beautiful and functional frying pan.

To prove its functionality Doug with the able help of Jim Wheeler stirred up some sautéed garlic and mushrooms and omelets.

A BOOK REPORT

TOOL MAKING FOR WOODWORKERS. By Ray Larsen.

Photos by John Kelsey

Index by Harriet Hodges

Cambium Press PO Box 909, Bethel, CT 06801-1996

[203] 426- 6481, Telephone and FAX.

Spiral Binding, 160 Pp.

ISBN Number 0-9643999-4-6

Cost \$19.95 plus S&H

This is an excellent introduction to what Larsen calls 'guerrilla tool making,' or the production of functional woodworking hand tools for a variety of operations. The result is a title that has immediate value for both metalsmiths and woodworkers alike. Those interested in hands-on instruction after reading this book can contact the author for his schedule of classes at

Genuine Forgery, 126 Broadway, Hanover, MA 02339, [617] 826 - 8931.

Morgan Kelsey's layout and design are good in that they present a straight forward, effective use of John Kelsey's photographs and editorship. It moves readers through: basics on types of steel, general considerations on both the setup and safe operation of a forge, analysis of needed equipment, as well as the hardening, tempering and finishing operations.

Larsen concentrates mainly on the use of the gas operated forge and furnace in this presentation, but allows sufficient space for those interested in more coal-fired operations.

Other parts of this title center on the production of specific tool types, such as woodcarver's chisels, hollowing adzes and hook tools and design considerations for all forms of implements. A favorite of this reviewer is a double-handled froe, which would be a vast improvement over the traditional metal eye and wood handle affair.

The result is that Larsen's book has a lot of good ideas for readers to try and to produce functional woodworking hand tools. Appendices include listings for equipment, related organizations (both blacksmith and woodworker), book titles and a user friendly index.

Chuck Hamsa
Reviewers Consortium
Lafayette, Louisiana

RESOURCES

From Nana Showalter

Below is the resource list Nana Showalter shared with us at the February. HABA meeting at Triple-S Steel Supply Co.

MATERIAL RESOURCES	BOOKS	MAGAZINES
Rio Grande 6901 Washington NE Albuquerque, NM 87109 1-800-545-6566 Tools, Chemicals, Books	<i>The Blacksmith's Journal</i> Box 193 Washington, MO 63090	<i>The Crafts Report</i> 300 Water St. Wilmington, DE 19899 Business Advice, Sales Opportunities
Centaur forge Box 340A 117 N. Spring St. Burlington, WI 53105 Books and Tools	<i>The New Edge of the Anvil</i> By Jack Andrews Skipjack Press.	<i>American Craft Magazine</i> 72 Spring St. NY, NY 10012-4019 Critic, Opportunities, Great Photos
J.G. Braun Company 7540 McCormick Blvd. Skokie, IL 60076 1-800-323-4072 Wood Textured Steel	<i>Metals Technic</i> <i>A Collection of Techniques for Metalsmiths</i> Brynmorgen Press 1992 33 Woodland Road Cape Elizabeth, Maine	BOOK DEALERS Centaur forge Box 340A 117 N. Spring St. Burlington, WI 53105 414-763-9775
Everhot Manufacturing Co. 57 South 19 th Ave. Box 38 Maywood, IL 60153 708-865-7070 Letter and Number Stamps	BUSINESS ADVICE <i>The Business of Art</i> By Lee Caplin Prentice Hall 1989	Norm Larson Books 5426 E. Hwy. 246 Lompoc, CA 93436 805-735-2095 (evenings)
Patina Finishes and Copper Coats, Inc. 8455 Commerce Ave. #B San Diego, Ca 92121 1-800-882-7004 Water Based Coating and Patina for Copper and Steel	<i>The Artist's Tax Guide & Financial Planner</i> By Carla Messman Lyons & Burford 1992	Skipjack Press, Inc. 637 Drexel Avenue Drexel Hill, PA 19026 601-284-7693

Spatz Paints Box 2153 Wichita, KS 67201 1-800-325-2661 Water Based Rust Inhibitor Paint = Hydrosatin		
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MARCH HABA MEETING SUMMARY

Notes by Jim Wheeler

The March HABA meeting took place at the Pioneer Village Blacksmith Shop at Jesse Jones Harris County Park. The meeting day was the last day of winter and the park looked like the first day of spring. The dogwoods were blooming along with the hawthorns and buckhorns. Everything was fresh and green from a rain the night before. The sky was clear and the air cool. It was a great day to be at the park to say goodbye to winter and to welcome spring.

This is the first time HABA met at the park. HABA members Larry Hoff, Larry Hickman and Lee Webb demonstrate at the park occasionally. Larry and Larry made the arrangements for the March meeting. Fourteen HABA members attended the meeting. Many visitors to the park stopped by to see what was going on at the blacksmith shop and were not disappointed. The park shop has a bellows powered forge. The bellows is an old one that was refurbished for more public service. Most of the smiths had their first opportunity to heat some iron with a bellows. No one was disappointed with the results.

I think more than a couple people caught the bellows fever as a result of this meeting. It is pretty easy to generate additional smithing interest at demonstrations with a bellows. Perhaps the time is right to organize a HABA bellows building workshop.

The purpose of the March and April meetings is to get people involved. That means giving everyone an opportunity to demonstrate or maybe experience the feel of forging iron for the very first time. Jesse Kirk, Tim Bailey, Charles Heathcock and Eric Gruel all got into making a knife from railroad spikes. Eric also got started on a bick iron for Larry Hoff's new anvil and provided a gas forge lesson for his young nephew Shawn. A. J. Gorrett got into creating some kind winged dragon-like creature. (I was never able to catch the scientific name.) (A.J. welcome to HABA. ed.) There was a similar creature perched on the back of his truck along with a steer's skull that framed two red lights. A.J. also had quite a collection of other odds and ends in the back of his truck that could be thought of as a gene pool for any number of other iron creatures. Frank Walters worked on some fire tools.

All of this work was done with the park's bellows powered forge, two coal forges and two different gas forges. A lot got done. New people got to demonstrate and experience forging for the first time. It was a productive meeting.

Tim Cowden provided a cooler full of soda. Tim could not make the meeting but Larry Hoff made sure the soda made it to the meeting. Lunch was 'catch- as-catch-can' and no one went away hungry. The park dog even managed a great lunch from the leftovers.

Show-N-Tell was another hit. Eric Gruel showed us a new four-inch diameter cast iron pipe propane forge. This forge is much smaller than the functional 'Freon-bottle' forge he brought to several other HABA meetings. When the ends of the four-inch forge are restricted, the forge reportedly will produce a welding heat. Eric also had a bean pot he made from one of the Freon bottles.

A.J. Gorrett showed us a hot-cut hardie he made from a sheet metal sheer blade and a rounding hammer he made from a jack hammer piston. The piston material is hard. The hammer handle eye was cut into the piston with a torch.

Jesse Kirk recently completed some fire irons he showed to us.

Frank Walters showed up with a trailer full of all kinds of smithing equipment...blowers, anvils, leg vises metallurgical coke and several small forges. The price was right and he sold a lot of what he had.

The last Show-N-Tell item was a cutoff hardie made from a jackhammer bit and it is very functional. There seems to be an ownership dispute however. Charles Heathcock seems to think it belongs to him. Sharon Heathcock seems to think it belongs to her. (I wonder if anyone bothered to check for a mark? ed.)

There was no business meeting associated with the March meeting. The meeting broke up about mid afternoon.

APRIL HABA MEETING SUMMARY

The April meeting was held at Tudor forge. Fourteen people attended and we would like to welcome Luther Miller to the group. Luther had an interest in hardening and tempering carbon steel. I think we got Luther started off on the right foot.

Frank Walters, Sharon and Charles Heathcock and Larry Hoff each brought a forge. Charles demonstrated how to make a fork out of a small railroad spike. Larry Hoff showed off the new coal forge that Frank Walters and he put together. I also saw another courting candleholder in the fire as I passed by Larry's forge.

The Show-N-Tell table had a beautiful knife that Keri Phillips made, three books on selling what you make for money and a couple of other books. One book that got people's attention was the Sonn book, *Early American Wrought Iron*. Two copies would have sold if there were any extra. The book is now out-of-print, is not easy to find and is much more valuable than anyone may think.

Jim Wheeler heated up some sausage and served sandwiches to whose whom wanted one. His efforts brought in a few more dollars for HABA..

While I am on the subject of money. Larry Hoff informs me that the HABA coffers contain \$607 and a fist full of coins. All HABA bills are paid.

There was a rather long business meeting. Here are some highlights:

Larry Hoff, Frank Walters, and Charles and Sharon Heathcock told about their experience demonstrating at Oldenburg the second weekend in April. Their host and landowner was most gracious. Forges were just set up in the field facing the road and people stopped to see what was going on. Some buyers even came back to show the smiths what they purchased somewhere down the road.

Traffic started moving along FM 237 about 7 in the morning and did not slow down until about 9 at night. The landowner extended an invitation to any and all smiths who would like to sell and demonstrate the first week in October. He is trying to develop the property for the spring and fall antique shows in the area. This invitation is seen as an opportunity to gather smiths up from across the country to sell and demonstrate for two weekends per year. Larry and Frank are going to see if they can line more smiths up to sell and demonstrate in October. (See A Note From The Prez above)

HABA needs to thin out its mailing list. There are a number of people on the list we have not heard from in over a year. The list really needs to be subdivided into at least two categories. An obvious list could be called members/subscribers. A second one might be network/supporters.

HABA knows the interest levels of people on the proposed network/supporter list. The interest level of many people on the members/subscriber list is unknown.

PLEASE NOTE: If we have not heard from you in more than a year, please send us a note and let us know you are still interested in the HABA Letter. The direct cost of each HABA Letter is about a dollar. If you are able to help us defray the mailing costs, that would be appreciated too.

Please make any checks out to Larry Hoff, the HABA treasurer.

There was a discussion about what to charge for a HABA Letter. About 90 people receive the HABA letter by e-mail and another 90 by U.S Mail. The question is how should HABA charge for the HABA Letter. Please give another HABA officer or me a call and let someone know what you think about this issue.

We also discussed the type of corporation HABA should form. There are two options. One is a non-profit corporation with members and the other is one without members. It seems that the easiest non-profit to manage and dissolve is one without members. More thought needs to be given to this issue. Do you have any experience to share about one type of non-profit versus another? Please give me a call. I would like to hear from you.

SPECIAL THANKS

To Larry Hoff and Larry Hickman for putting together the March meeting.

To Jim Wheeler for taking some notes at the March meeting and cooking at the April meeting.

To Sharon and Charles Heathcock for providing the cooking equipment, a demonstration and a forge at the April meeting.

To Frank Walters and Larry Hoff for bringing a forge and demonstrating at the April meeting.

And, an **Extra Special Thanks to Josef Kamberling**. Josef encouraged HABA to get started but we never have the pleasure of meeting him because of Saturday commitments. Josef sent us a note or two of encouragement during the last two years expressing thanks for the HABA Letter. Last month his latest note of appreciation included a generous check, his contribution to HABA's future success.

THE MAY HABA MEETING

The May 15th HABA meeting will be held at Tudor Forge where the power and light are always free. The light is from the sun and the power is from the people who come. The general start time for monthly HABA meetings is 9:00 am.

The May meeting is shaping up to be quite informative. Keri Phillips will be demonstrating copper raising and copper patinas. Dave Koenig will demonstrate several forging techniques. Some he learned at Doug Hendrickson's 'Dancin Hammers' demo in Canton last month and some he developed as part of a door project in progress.

The State of Texas asked HABA to forge the hardware for the living farm under construction at Washington on the Brazos State Park. The Barrington Farm includes the Anson Jones house, kitchen, and smokehouse enclosed by a picket fence. Outside the fence is a barn, two slave quarters and a corncrib. The majority of the hardware will be hinges and latches for fence gates, doors and shutters. Additional forged items like a crane for the kitchen fireplace, S-hooks, rings at the barn and teeth for an A-frame harrow were also mentioned.

Designs for the hardware and kitchen crane will be available at May HABA meeting.

At the May meeting, I would like to get your thoughts about accepting this invitation as a HABA project. Should HABA decide to accept, I think HABA should also have an internal objective. That objective is to make sure that everyone who works on the project gets at least one piece of his or her work accepted.

Here are some additional pieces of information that may answer some of the questions you are asking:

- The due date for the ironwork is August/September.
- The contractors will install the hardware.
- Makers of individual pieces will most likely be able to mark their pieces. (We need to hurry up the HABA 'mark making' demo.)
- The Park would like to have a blacksmithing media event at the new barn.
- A majority of the cost associated with providing the ironwork will most likely be borne by HABA. Now that we have some plans, I will have some kind of estimate for the May meeting.
- Barrington farm will come to life in August/September of 1999 with people and animals. The gates to the farm will be open to the public in January 2000. The farm's grand opening is scheduled for Texas Independence Day, March 2000.

Everyone needs to bring something to the May Meeting. Something includes a forge if you have one, a pair of gloves if you would like to forge iron and most importantly, a pair of safety glasses with side shields. Something to raffle at the end of the meeting is always welcome too.

Jim Wheeler will stir up a pot of some kind of delicious stew. The menu was not finalized as this letter goes to press. The cost of sharing in Jim's latest gastronomical creation will be \$3.00.

DIRECTIONS TO TUDOR FORGE –May 15

Take 249 NW from Houston. Travel through the towns of Tomball, Decker Prairie and Pinehurst. At Pinehurst, 249 changes to 1774. Stay on 1774. About three miles ahead on 1774 look for a Texaco station on the west side of the road. One half mile past the Texaco station, turn left or west on Tudor Way. You will find the forge about a mile down the road.

From the intersection of 1488 and 1774 in Magnolia, go south on 1774 about 4 miles. Look for Tudor Way just after the Country Jamboree building. If you see the Texaco station you went too far.

ODDS AND ENDS

Hot/Cold Hardie From Jackhammer Bits

By Mike Linn, mikelinn@concentric.net

We just made 3 hardies at our last forge meeting. Here is how we made them:

- 1) Forge to rough shape.
- 2) Grind to final shape.
- 3) Heat to non-magnetic (orange red).
- 4) Swish the cutting end in slack tub (about 2 inches). Make sure you dip and swish to keep from getting a fracture line.
- 5) Immediately start filing along the cutting edge. The file should skate.
- 6) As soon as the file starts to bite, quench the whole thing in the slack tub.

You now have an operational hot/cold hardie. We made many hardies from jackhammer bits. The good ones are W1. Many also made chisels from drill rod and hardened them in the same manner.

Give it a try. I think you'll be happy with the results. This method is much quicker and easier than trying to read colors or hold exact temperatures. <http://www.bham.net/afc>

Sucker Rod Metallurgy

Sucker rods may be made from several materials

Here are the "low-end" specs for the rods we use. Most rods you find will already be 16/22 rc in hardness. This is for corrosion resistance to hydrogen-sulfide stress failure.

The most common is AISI-C-1536 Hot Rolled Steel.

Chemical properties %

Carbon .32/.39

Manganese 1.15/1.45

Phosphorus .04 Mx

Sulfur .04 Mx

Silicon .20/.30

Vanadium .02/.03

The balance of course the balance is Iron.

Mechanical Properties

Tensile Strength, psi 100/110,000

Yield Strength, psi 70/80,000

Elongation, 8", % 18/23

Reduction of Area, % 50/65

Brinell Hardness 190/205

Tendonitis

A Note From Vance Burns

While at the Tannehill Conference, the group lapsed into Tendonitis analogies. As you know, "Tendonitis, Tennis Elbow, Carpal Tunnel Syndrome, Repetitive Stress Injuries and Cumulative Trauma Disorders" are what blacksmiths dread. Don Fogg shared some concepts very clearly which I'll summarize:

1. Anvil height recommendations (knuckle height) are probably wrong for most smiths. If your anvil height causes you to fully extend your arm with each blow, your chances of over extension are much greater. I like my anvil high. I think it gives me better control.

2. An object in motion tends to stay in motion. Our large mass of delicate muscle tissue is in motion on the descending hammer blow and will continue in descent long after the swing is terminated, even well into the

start of the upward swing. This momentum strains the connecting tissue, the tendons, stretching a little each time. This all adds up! Reminds me why I don't own a trampoline.

I read an article in Discover magazine (May 1999, *Deadly Knee Bends*, p.38. ed) about muscle self-destruction; the upshot was that muscles don't have a warning mechanism to let you know your reaching the limit. The article detailed how people can strain their muscles fatally. Some prisoners were having deep-knee bending contests. They almost died, and many do perish from this disorder - especially those who excessively struggle, e.g. trapped in a building collapse.

Chuck Robinson - LAMA librarian, brought up how the typical tendentious gizmo is a constrictive rather than a restrictive device. Constrictive devices bind up the muscles and don't let them move. It feels good at first, but the blood vessels eventually succumb to the same pressure - starving the muscle. The newer technology does not constrict the muscle at rest, but restricts as the muscle expands, giving maximum support as the muscle goes into action. Check it out, <http://www.band-it.com/Band-it.htm>

Additional Web Sites

Here is the web site of Guido Schindler, a Swiss licensed Master Metalworker. Guido lives and works in Houston. I hope we all have a chance to meet Mary Ann and Guido at the May HABA meeting.
<http://www.schindlermetalworks.com>

Paul Margetts web page from the UK. <http://www.forging-ahead.co.uk/index.html>

Sword Class at John C. Campbell. HABA's very own Vance Burns attended. Here are two sword sites.
<http://www.dfoggknives.com/JCC98.htm>
<http://165.113.187.5/afc/blade/bladedemo.html>

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OTHER TEXAS/LOUISIANA SMITHING MEETINGS

1. The East Texas Blacksmith Alliance meets the second Saturday of each month at the Heritage Village Museum in Woodville, TX. The Museum is on the north side of highway 190 on the West Side of Woodville. You cannot miss it. For more information, call 409-283-2272.
2. The Balcones Forge, a sub-chapter of the Texas Artists Blacksmith Association, meets in the Austin/San Antonio area the last Saturday of the month. Call Gary Evensen, 512-266-2430, for more information.
3. The North Texas Blacksmiths Association meets monthly. Contact Dave Planz, 972-335-9097, or docjvp@aol.com for more information about the next meeting location. You can also visit the NTBA Web Site: <http://www.flash.net/~dwwilson/ntba/>.
4. The Louisiana Metalsmiths' Association (LAMA) meets monthly. Contact Dave Mudge at 504-735-0049 or lama@wild.net for more information about the next meeting location. You can also visit the LAMA Web Site: <http://www.wild.net/~lama/>.

FOR SALE

Frank Walters has bees wax for sale. The cost per pound is \$3.25. It will be sold on a first come first served basis. Frank's number is 713-896-7566.

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