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# THE FORGE FIRE

**The Newsletter of the Indiana Blacksmithing Association, Inc.**

**An Affiliate Of The Artists-Blacksmiths' Association of North America, Inc.**

IBA is a Not For Profit Indiana Corporation recognized by the IRS under section 501(c)(3)

9:30 AM is the regular meeting time for IBA Hammer-Ins  
with beginner training available at 9:00 AM.  
PLEASE MAKE SURE TO ASK FOR HELP!

**If you would like an IBA membership application form,  
please contact Farrel Wells, Membership Secretary  
(765) 768-6235.**

BULK LOTS ARE AVAILABLE TO DEMONSTRATORS,  
SHOPS, SHOWS AND OTHERS WILLING TO MAKE THEM AVAILABLE.  
WE APPRECIATE YOUR HELP.

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**More nearby resources and organizations for blacksmiths:**

**Rural Smiths of Mid-America:**  
Meetings are on the first Saturday  
of each month  
Call Ron Gill  
317-374-8323 for details

## IBA MEETING SCHEDULE

Check the latest *Forge Fire* for monthly **IBA** revisions.

Nov 15 2014	JIM CLAAR SHOP NEW LISBON
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Dec 13 2014	TED STOUT SHOP WEST POINT
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Jan 17 2015	TBD
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Feb 21 2015	KEN DETTMER SHOP COLUMBUS
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### Dates to Remember

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Claar  
  
Nov 27  
Thanksgiving  
  
Dec 13  
Hammer In at Ted  
Stout  
  
Dec 25  
Christmas

## Editors Message

This month we will have a very special hammer in at Jim Claar's shop in New Lisbon, IN. It has been a few years since we met there. I believe Jim's shop was originally a school gymnasium. It is huge and Jim has filled it with tools of all sorts. Some of the most interesting items are of Jim's own creation. In the December 2013 Forge Fire, Michael Woloski wrote an article on a mechanical power hammer that Jim had built. Some items I recall from the last hammer in included a hydraulic power hammer with 4-bar mechanical linkage driven by a 2 cylinder gasoline engine, round swage block on trunion mount to index different forms, large (chambersburg??) air hammer. It will be an interesting day. I hope to see you there. Lunch will be on your own. There are several fast food restaurants at the I-70 interchange.

The December hammer in will be hosted by Ted and Carol Stout. As has been our tradition, the December hammer in will be held on the 2nd Saturday (December 13). Ted's shop is large and well equipped. I have not heard about a demonstrator, but it is usually a good idea to come early and get a good seat. Tradition calls for a pitch in meal, often with several chili recipes. Bring a dish to share and come hungry.

The biannual Upper Midwest Regional Blacksmith Conference will be held next July in Pontiac, IL. Jim Johnston has lined up Jeff Farmer to be the IBA sponsored demonstrator. Jim reports that Jeff is planning to demonstrate on re-purposing tools. If you have a lot of tools that would be more useful being something else, I would recommend putting this on your calendar. The 2015 UMRBC will be July 17-19 in Pontiac, IL.

I will be following up with Jim on the theme for next years IBA Conference project. I know quite a few groups want to use the winter months to get concepts and designs together. I suspect Jim has told me what the project theme is, but I cannot locate any notes. I hope to have an update in the December edition.

I hope to see you at the upcoming hammer ins. In the mean time keep your forges hot

## IBA Satellite Groups and News

### Sutton-Terock Memorial Blacksmith Shop

Meet: 2nd Saturday at 9 AM  
Contacts: Fred Oden (574) 223-3508  
Dennis Todd (574) 542-4886

### Wabash Valley Blacksmith Shop

Meet: 2nd Saturday at 9 AM  
Contacts: Doug Moreland (217) 284-3457  
Max Hoopengarner (812) 249-8303

### Maumee Valley Blacksmiths

Meet: 2nd and 4th Saturday  
Contact: Clint Casey (260) 627-6270  
John Schamber (260) 579-7303

### Rocky Forge Blacksmith Guild

Meet: 2nd Saturday at 9 AM  
Contacts: Ted Stout (765) 572-2467

### Whitewater Valley Blacksmiths

Meet: 2nd Saturday  
Contact: Keith Hicks (765) 914-6584

### Bunkum Valley Metalsmiths

Meet: 1st Saturday  
Contacts: Doug Neukam (812) 259-4430  
Steve Stoll (812) 486-9668  
Kathy Malone (812) 725-3310

### Jennings County Historical Society Blacksmith Shop

Meet: 2nd Saturday at 9 AM  
Contact: Ray Sease (812) 522-7722

### Fall Creek Blacksmith Shop

Meet: 4th Saturday at 9 AM  
Contacts: John Zile: (765) 533-4153  
Larry Singer (765) 643-5953  
Farrel Wells (765) 768-6235

### St. Joe Valley Forgers

Meet: 4th Saturday at 9 AM  
Contacts: Bill Conyers (574) 277-8729  
John Latowski (574) 344-1730

### The Southern Indiana Meteorite Mashers

Contacts: Billy Merritt (812) 338-2876  
Steve King (812) 797-0059  
Jeff Reinhardt 812-949-7163

### One Armed Blacksmith's Shop

Meet: 1st Saturday  
Contact: Tim Metz (812) 447-2606

### "Doc" Ramseyer Blacksmith Shop

Location: 6032W 550N, Sharpsville, IN 46060  
Meet: 3rd Sunday at 2 PM  
Contacts: Mike Kelley  
Charles Gruell (765) 513-5390

### Jennings County Historical Society Blacksmith Shop

The Jennings County Historical Society Blacksmith Shop opened at 7:40am by Paul Bray and Kevin Welsh. Kenny Dettmer and Kevin Welsh worked on two wizard head handles. Brad Weaver drew out the reins on a pair of tongs. Everyone took a break while Charlie Helton and Brad did some rearranging on the wall above tong rack to hang some cedar shingles from prior State Fairs. Some of them were singed by attendees from our group. Brad worked on a pair of tongs using a "V" block guillotine swedge and showed how to do the same thing with square stock, if you don't have a guillotine. Ray Dean and Leelynn Dean spent some time working on tongs and drawing out the tines.

December meeting will be at the abode of Jim Watts. This will be a pitch in or you may go a short distance and have fast food. January meeting will be at Paul Bray's. No food necessary. Dessert or drinks welcome. After meeting, any drinks welcome! February and March meetings to be announced later. February State Meeting the third Saturday will be at Kenny Dettmer's (not to be confused with our monthly meeting).

Our November meeting will be the last meeting at Vernon this year. I hope to see you there.

Paul Bray

## IBA Satellite Groups and News (continued)

### The Southern Indiana Meteorite Mashers

Our October meeting was held in conjunction with Steamboat days in Jeffersonville Indiana. Longest meeting we have had as it lasted 3 days! The Brotherhood of Friendly Hammermen, demonstrated all three days. A meteorite weighing 9# 9.5oz was forged into a billet, 2 wizards from 3" stock and a crane from 1/2" by 2" stock were all forged for the crowds. The wizards will be bike racks for the city. We had all of the regular crew plus Pete

Riddle, Sarah and Dan Hart and Phoebe Graham drove down from near Indy to join in. Billy Merrit had his full display out for all to enjoy, and directed the meteorite forging and made sure to induct Phoebe, Sarah and Dan and Pete into the small cadre that have forged me-



teorite. The festival organizers were pleased and have suggested a repeat performance next year. the food venders near us were very happy with the anvil noise stating that when "those Guys" were forging with those big hammers the crowds were thick and they sold more.

Next meeting will be Friday, November 28th at Jeff Reinhardt's shop in Floyds Knobs. This is the now infamous "Smoked Turkey Ham-merin" featuring sliced smoked turkey for lunch. Bring a dish and an empty belly. The shop has heat, the parking is free and the fellowship excellent!



## IBA Satellite Groups and News (continued)

### Bunkum Valley Metalsmiths



The Bunkum Valley Metalsmiths met on October 4. We had another wonderful day of working together. The weather was a little chilly but that makes it kinda nice to stand around a fire. There were around 32 people in attendance. We again had some new folks come to see what we are all about. I know that Randall got in on the action by making a roller chain billet. Randall had quite the group observing his work. I know that Andy Manning was one but I didn't get the names of the rest. I think Aaron Baker was helping these guys out along with his son Chris. Steve Stoll made a railroad spike knife. Terry Byers was making a snake out of a rasp with the help of veteran blacksmith CJ Sauer. Levi was making a door pull. Alan Brazzel made a cross peen hammer and was helping some others. I know Joe was making something he was grinding on cause I got a picture of him making sparks. Alan brought Sarah with him but she had been in a wreck and was given strict orders just to look pretty and observe. She has that pretty part down. We always have the bench sitters that tell the stories and supervise like Ron Tincher, Lonnie Salmon, and Jerry Robinette. Tim McNelis was out helping some of the younger folks too. Iron in the hat was a hoot as it usually is. We enjoyed a lunch of lasagna, salad, dirty rice, homemade bread, grape salad and a bunch of desserts too numerous to mention. Now off the topic of blacksmithing....The group surprised yours truly with birthday greetings and even sang to me (I think most should stick to their day jobs). They (the



women that is) had all conspired to have a cake and ice cream. Pat Sauer and Carol Baker gave me some of the most beautiful mums I have ever seen. Like I have always said we have the most awesome bunch of people in our group and we appreciate all of you. Until next time.....Kathy Malone secretary.

## Skill Development: The Five Factors of Forge Welding

In the not too far past, blacksmiths held special positions in their communities because of the value of their tool and weapon making abilities. In more ancient cultures, the craft itself was considered a form of magic. Watching a blacksmith work is still mesmerizing and seeing a smith cause two pieces of metal become one through forge welding is indeed magical. To bring a bit of magic to your forge, there are five factors you need to consider; scarf, flux, temperature, timing and hammer blows.

A good scarf is the first and possibly the most important step in achieving a good weld. The scarf establishes the junction and provides the means for blending the weld. Start by upsetting the ends of the bar to provide mass. Create short, thick scarfs as thinner scarfs are subject to being burned away in the fire. Many feel a staggered scarf helps hold the flux and allows more bite but it's a matter of preference. Once the scarf is built, remove the scale with a block brush to ensure a good, seamless weld.

Although it is possible to forge weld without flux, a good flux makes life easier. There are several good fluxes available commercially as well as a number of recipes for making your own flux. Some commercial fluxes have a bit of iron powder or scale mixed in, making it less slippery. No matter what flux you choose, you'll want to prep your material by heating it until it begins to show color then wire brushing before sparingly applying flux to the edges that will touch. Preheating causes the flux to run better when the material reaches a welding heat. One note of caution, flux goes molten and will fly everywhere when you hit it. It is sticky when hot and can cause a nasty burn or even start a fire, so wear a leather apron, gloves and safety glasses.

It is essential that your material is evenly heated to a yellow heat which translates to a temperature of about 2,300 degrees. Orange means the metal isn't hot enough, while white means it's too hot. One trick you can use to gauge the temperature in a gas forge is to use the liner as a guide; when your metal blends with the hottest part of your forge, it's at welding heat. The anvil face needs to be hot too; otherwise, it will steal the heat from your metal, giving you less working time. Finally, when working in a gas forge, turn your material over for a second right before you bring it out to even up the temperature.

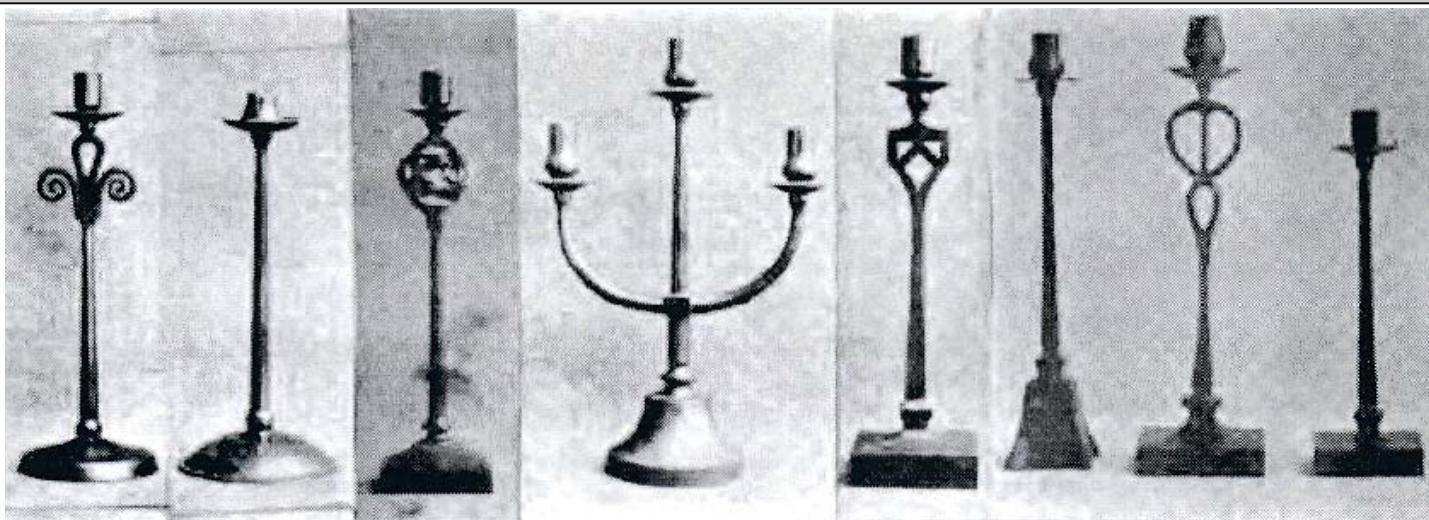
When your material reaches the right temperature and is ready to weld, you have very little time to waste. Timing is largely a matter of practice, but it's also a matter of being prepared - make sure the face of your anvil is clean and your hammer is in position before you pull your metal out of the forge. Place the material in the fire the way you want to bring it out, saving yourself the waste of readjusting your tongs. When you bring the material out, give it a quick tap to remove any excess flux, then be ready to hammer it as soon as it hits the anvil.

No matter what your mind tells you, hitting hard and fast won't give you the weld you're looking for. To prove the point, experienced smiths have tapped a weld together using a glass soda bottle. A firm blow or two in the center is enough to make the weld stick, then you can begin hammering with the same amount of force you would use to normally forge steel of that temperature. Be sure to work the thin tip of the scarf before it cools. Work both sides of your material, but avoid overworking it or forging beyond a medium orange heat.

If you've worked the magic properly, your weld will not have any dark spots or evidence of a scarf. If there is evidence that the weld is not complete, flux the open seams of the joint and take another welding heat, forging carefully so as not to reduce the stock beyond the parent stock.

Ta da, you have now passed one of the ancient rights of a blacksmith. If forge welding is still a bit of a mystery for you, check out Bob Heath's book "How to Forge Weld on a Blacksmith's Anvil For Those Who Have Diligently Tried and Failed." Available at Pieh Tool for just \$12.

Editors Note: This article appeared in the October Legacy Links newsletter from Pieh Tool Company ([www.PiehToolCo.com](http://www.PiehToolCo.com))



## ART SMITHING

*Thomas Googerty, Pontiac, Illinois.*

*Industrial - Art Magazine 1914*

Reprinted From a Google Publication PDF.

**A**T the present time great interest is being taken in the teaching of art work in our public schools. Every school of importance is doing something in the way of giving the pupils a knowledge of art. One working in the school crafts should study art. There is no craft work that one can do well without this training. With art training one can see defects in his work much quicker than without such training. In fact, it opens up a new world of possibilities to the workman. The more one is convinced of the value of through acquaintance with the medium in which he is working, the higher the class of work he produces.

All fine workmen in any craft have more or less an ability to draw. This not only gives them power to transfer their conceptions to paper, but it also helps them in the execution of the work. The iron-worker in particular should practice free-hand drawing. It enables him to form his material into proper shape. As a general thing, forge work is fashioned into shape by eye. Wrought iron-work is one of the oldest of the

handicrafts. It was extensively practiced by the ancients and carried to a high degree of excellence, both in execution and design. During the Middle Ages and up to the seventeenth century some of the finest examples were produced. A study of the older forms, especially those of Medieval German production, shows iron fashioned in keeping with its properties and with the spirit of the craftsman. It is impossible to utilize natural forms in wrought iron without convention. Realistic iron flowers are inconsistent with the material in which they are executed. They kill the strength and destroy the character of the metal. This should be learned early by one working in iron. When the iron-worker of the past imitated nature too closely in leaf and flower, he failed as a designer and his work deteriorated. Iron as a crude metal must be fashioned into shapes that are suitable and practical for the material. For instance, it readily allows itself to be worked into graceful curved forms which can be used to advantage in grille work. It may be surface-decorated by using chasing tools, which is done on hot or cold metal, depending on the depth wanted.

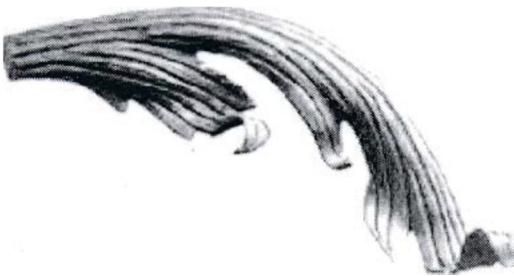


Fig. 1 Forged Leaf.

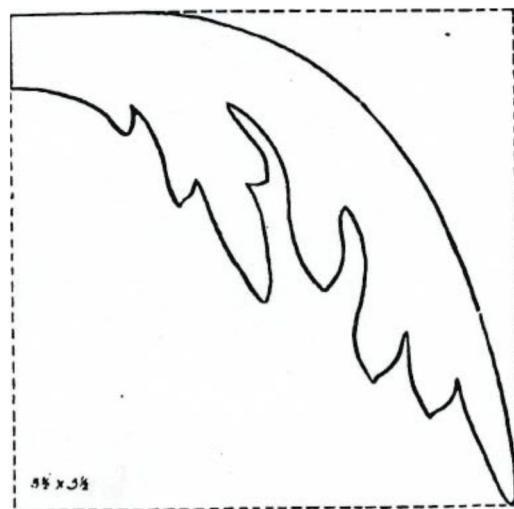


Fig. 2 Half pattern.

Iron may also be punctured with openings thru the metal which give a play of light and shadow that is very pleasing. Grotesque figures may also be worked in iron and an endless variety of leaf forms which should be conventionalized. Embossed or repoussé work may be done to advantage. In doing this the metal, while hot, is hammered on the end grain of elm wood and on forms made from iron. When cold it is hammered on lead, and steel tools are used to sharpen up the detail.

In Figure 1 is shown a leaf made from Number 16 sheet steel and Figure 2 shows a pattern of the same leaf. In making a leaf of this kind, a full-size drawing is made just as it should look when modeled. From this drawing a pattern is developed as the leaf would look when in the flat. It is impossible to lay it out accurately. The method used is to find the stretch out of the leaf by measuring along its greatest length. This can be done by using a pair of dividers. The length found is then laid off on the metal. The widest parts of the leaf are then measured and laid on the metal. Having the length and width the rest can be sketched in. The leaf is now cut out with a narrow cold chisel that can be made to follow the curved line. This cutting should be done while the metal is cold. The leaf shown in the illustration has been fluted with a steel hand-tool. In doing this a tool as shown in Figure 3 is used.

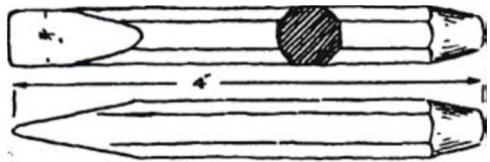


Fig. 3. Cutting Tool

This tool is made smooth, rounded at the base like an ordinary fuller and then hardened. The fluting is also done while the metal is cold. Lines are marked on the metal with a slate pencil and then sunken with the tool and hammer. In modeling the leaf a hammer like the one shown in Figure 4 is used. It is called the

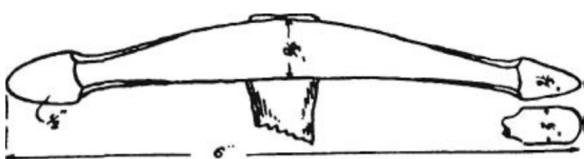


Fig. 4. Modeling Hammer.

modeling hammer. This hammer has a ball on one end and a pien on the other, both of which are made very smooth and without sharp corners. These hammers are made in various sizes. In modeling the leaf it is

heated and hammered on the back side with the ball of the hammer, using the elm block to hammer on. The ends of the lobes are then formed to give the whole a decorative effect. These leaves are generally used in grille work and are welded into position.

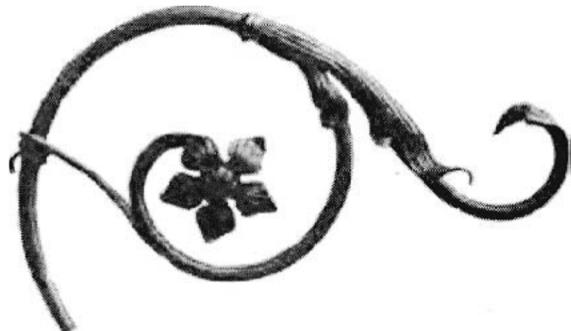


Fig. 5. Grille with Leaf.

In Figure 5 is shown part of a grille with a similar leaf welded on. In welding leaves to the members of grille work the bottom part of the leaf is formed around the bar; caught with a pair of tongs, it is heated, using a flux until hot enough, and then is taken to the anvil and welded. A small collar is then welded in front of the leaf as shown in the illustration.

The leaves shown in the illustrations are made to cover the grille on one side. If a grille is to be seen from both sides when in place, the leaves are cut out symmetrically and then bent and modeled to fit over the top and sides of the bars so that they appear finished from both sides. Figure 6 shows the pattern of such a leaf.

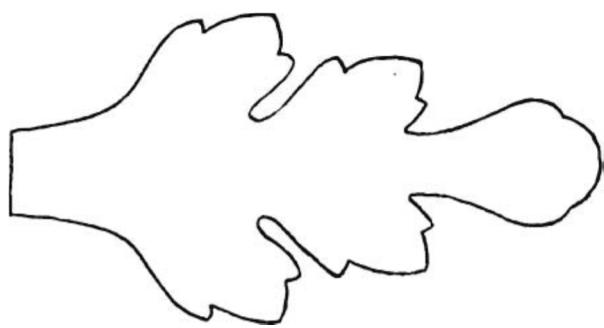


Fig. 6. Full Pattern of Leaf.

The following exercises will be of a simple nature to give the beginner an idea of the tools and processes used in producing this kind of work by hand. The writer does not claim that the following method of working is the only one used in doing this work. There are many other ways to execute these exercises and one should use his own ingenuity in designing and executing such work. It is hoped that pupils will be encouraged to originate designs of their own that they may work out in this interesting metal. The tools used in making these exercises will be the ordinary forge shop tools that can be made and will be described later on, as they are needed.

#### Exercise No. 1.

Volute Scroll. This exercise is given in order to familiarize one with the bending of curved forms and also to train the hand and eye in doing freehand work. No metal lends itself more readily to the bending of curves than wrought iron. The scroll is an important element in the designing of iron doors, window grilles, etc. In bending the scroll it must not have kinks or flat places, but a gradual curve. If it is desired to suggest strength the scroll is coiled tightly; or if lightness of effect is desired, it is coiled loosely. In making a scroll to fit some particular place a drawing is made with chalk on a surface plate. The scroll is then measured along the line with a string to find its length. In Figure 7 are shown the drawings of scrolls. The one at A shows too much space between the coils. The scroll at B is top-heavy owing to the coils being equal in size. The one at C has a continuous curve with unequal coils which balance better.

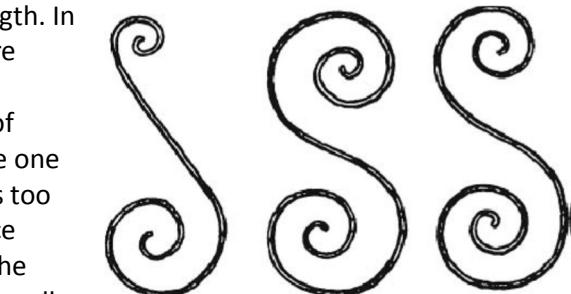


Fig. 7. Volute Scrolls.

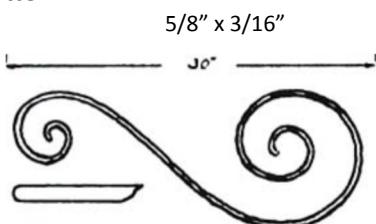


Fig. 8.

In bending a scroll from a flat piece of stock, as

shown in Figure 8, the end is heated and hammered on the corners to make it round at one end. It is then bent over the outer edge of the anvil, as shown in Figure 9A and B, to form the eye. It is then heated for a considerable part of its length and rolled up as shown at C.

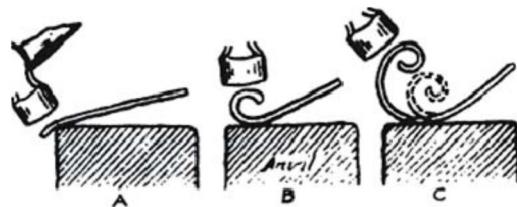


Fig. 9.

If any kinks get into the bar they can be rectified by hammering on the horn. This is the method used in forming a scroll with the hammer. In heating the bar to be rolled into scroll form, it must not be heated to a white heat. Scrolls are also bent over forms when a great number are wanted.

Heavy scrolls are formed by bending them in a bending fork that fits into a square hole in the anvil. (See fork in Figure 10.) A monkey wrench if used to bend the bar when in the fork.

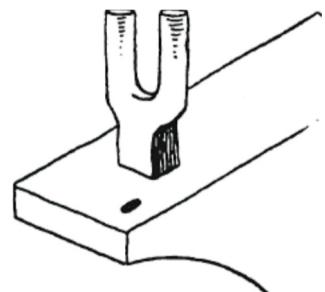


Fig. 10. Bending Fork

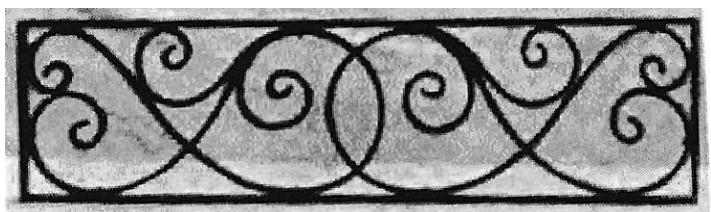


Fig. 11. Grille.

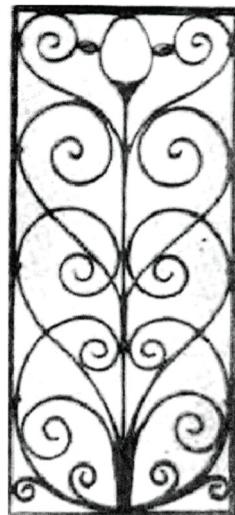


Fig. 12. Grille.

At Figure 11 and Figure 12 are shown grilles which are made from flat stock. The scroll in this case was made after the bars had been welded in place. They could be made first and then riveted or fastened with iron bands, but welding of course makes a better job.

Figure 13 is shown a drawing for a welded scroll. Notice the dotted line at A. This is where the weld is made. At B, the pieces are shown in position to be welded by the separate heat method. In doing this the length is measured on the drawing with a string, and the three pieces cut. The two short ones are upset; one laid on top of the other; heated and welded at the same time they are scarfed. The long piece is upset and welded to the short one. They are then formed.



Fig. 13.

#### Exercise No. 2.

**Twisting.** A piece of one-half inch square stock, nine inches long is heated its entire length, one end caught in a vise and with a monkey wrench or heavy pair of tongs on the other, it is twisted to the right. If the heat is an even one and not too hot, the spacing of twist will be uniform. In case one part twists faster than another, a little water is used to cool that part. The beauty of twisted work depends on having the spacing uniform between the turns. (See Figure 14.) Flat stock can also be twisted in this manner.



Fig. 14.

To straighten twisted work, it is heated red, set on the end grain of elm wood and hammered with a wooden mallet. The mallet used in this work should be made from hickory. For heavy striking a little band of iron can be put on the mallet a half-inch from one end, so that the mallet will not split. The block on which to straighten the iron should be about ten inches in diameter and three feet high. A short block about eight inches in diameter and twelve inches long may be set into the coal box, having coal under and around it to hold it in place. This makes a very handy block on which to bump up light pieces of metal or to straighten metal upon.

#### Exercise No. 3.

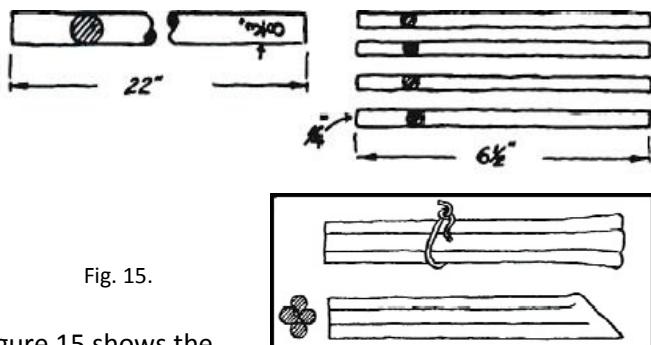


Fig. 15.

Figure 15 shows the dimensions of stock for a twisted poker-handle. The four, 1/4 inch rods x 6-1/2" long are upset on one end until they measure six inches. They are then welded together on this end. This is done by first twisting a strong binding wire around the rods to keep them in place while taking the heat. In welding, they are welded directly on the ends and scarfed as shown in Fig. 16.

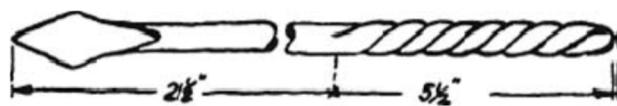


Fig. 16.

Notice that the scarf is made so that the point of the scarf on the other piece will come onto a one-quarter inch rod and not between the two. The scarf must not be hammered farther back from the ends than 3/8-inch. The 3/8-inch bar is now upset on one end and scarfed. The two parts are then welded, smoothing the weld with the hand hammer. The end of the handle is welded directly at the ends of the rods. The entire handle is heated uniformly; caught in a vise and twisted to the right. If any part twists faster than another, that part is cooled with water dropped from a hole in the bottom of a tin cup. In twisting the handle, the 3/8 bar is caught in the vise. A strong pair of tongs are used on the end of the handle to twist it, or the end of the handle can be caught with a monkey wrench. The point of the poker is drawn to a square point and then flattened. In making pokers or shovels, the stock may be either round or square. In Fig. 17a. is shown some handles

that are suitable for pokers or shovels. A method of braiding the

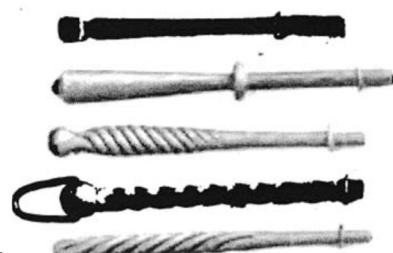


Fig. 17a. Poker Handles.

handle shown in figure 17b is to weld four 3/16 rods of either round or square stock to a piece of one-half inch round. Two of the rods are then bent over at right angles to the one-half inch piece. The others are bent over them, and so on until finished. The four rods are then welded at the top and a ring turned. The last illustration shows the method of bending the rods.

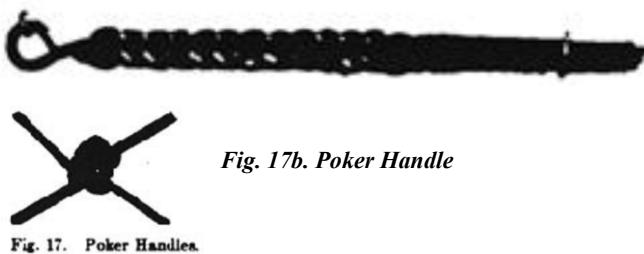
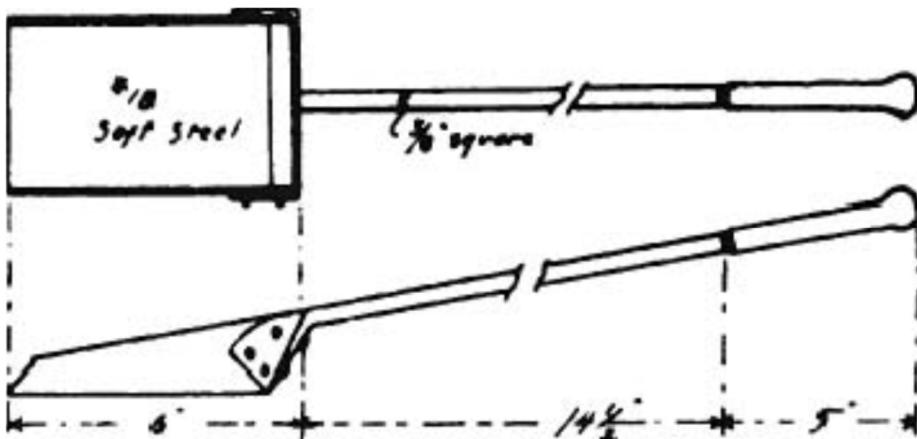


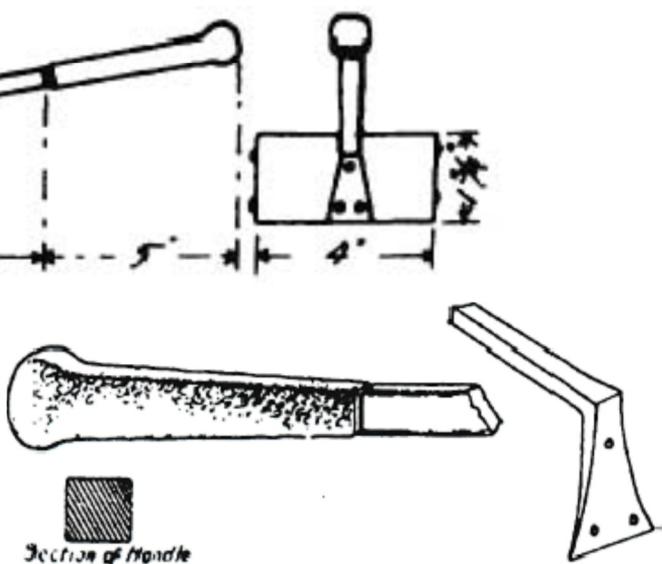
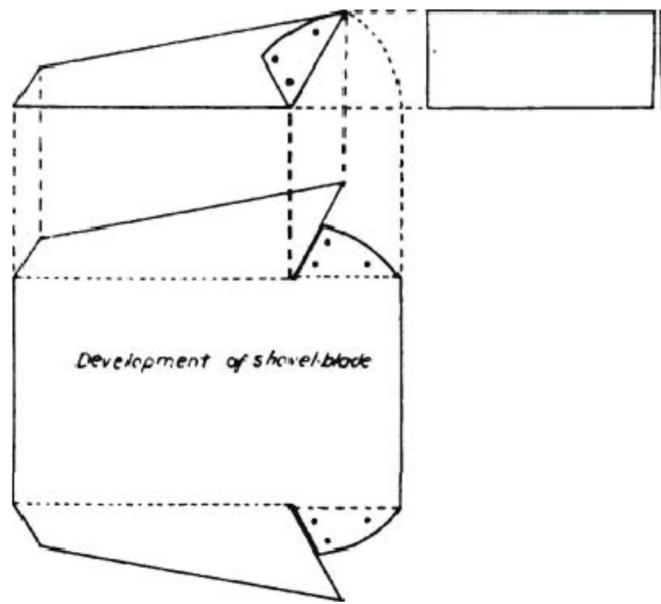
Fig. 17b. Poker Handle

Fig. 17. Poker Handles.



#### Exercise No. 4.

Shovel. Fig. 18 shows the dimensions and form of the exercise. In making the handle, 3/8 square stock is used. The piece is cut 25 inches long. On one end the piece is upset considerably in order to get a good sized head. Five inches from the end of the head a line is cut on four sides with a chisel. This part is then hammered with a ball hammer while hot to give it a rough texture as shown in Fig. 19. The other end of the handle is upset a little; bent on an angle and flattened, letting it get as wide as it will.



The development of the pattern for the shovel blade is shown in Fig. 20. At the top is shown a side and end elevation of the shovel. The dimensions should be drawn full size. The shapes of the sides and of the ends are found by measuring from the elevation. The pattern should be made from sheet iron and kept for future use.

In forming the shovel, the sides are first bent up by using the vise and heel of the anvil. This forming must be done while the metal is cold. The end of the shovel may be bent by hammering it over a heavy, flat piece of iron. The corners are hammered around the sides by catching the shovel in the vise. They are fastened by drilling holes thru both pieces and riveting them, using a rivet set to finish the rivets. In fastening the handle to the blade or shovel, three Number 10 round-head rivets are used. If desired, the handle can be made from larger stock, also increasing the size and the thickness of the shovel.

Fig. 20.



## The **FORGE FIRE**

Newsletter of the  
Indiana Blacksmithing Association, Inc.

**Farrel Wells** *Membership Secretary*  
8235 E 499 S  
Dunkirk, IN 47336-8807

First Class Mail

Address Correction Requested  
If Undeliverable return to  
sender

### **November 15 Hammer In**

Shop of Jim Claar, New Lisbon IN

Driving Directions: I-70 Exit #131 (New Lisbon) and turn North on Wilbur Wright Rd. Go about 3/4 of a mile. Look for signs

Lunch at local restaurants or brown bag

### **December 13 Hammer In**

Shop of Ted & Carol Stout, West Point IN

From I-74, exit at Waynetown (9 miles west of Crawfordville). Take highway 25 north thru Wingate. Proceed north to the flashing light where highway 28 intersects with 25 at Odel. (The sign reads Odel on both sides). Continue north for 2.5 miles to county road 700 South, turn west (left) on 700 south, Ted's shop is the first building on the left.

From Lafayette follow Highway 25 west to West Point. Proceed on 25 for 2.0 miles to road 700 south, turn west (right).