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April 2012

# 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)

10:00 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 Moe Handy  
(317) 862-5647 for details.

## IBA MEETING SCHEDULE

Check the latest *Forge Fire* for monthly IBA revisions.  
Contact **Michael Wollowski** (812) 232-2591 if you are  
willing to host or demonstrate for IBA

Apr 21 2012	WHITEWATER VALLEY
May 19 2012	ROCKY FORGE BLACKSMITH GUILD
June 1-3 2012	IBA CONFERENCE TIPTON, IN
July 21 2013	SOUTHERN INDIANA METEORITE MASHERS



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IBA Conference

Sept  
Quad State  
(SOFA)

## Editors Message

The annual IBA business meeting was hosted by the Bunkum Valley Metalsmiths. It was a beautiful day and Bunkum Valley were excellent hosts. Aside from the business meeting, several forges were lit. A forge welded axe head was made with the assistance of a unique and extremely powerful hydraulic press. Calculations from pressure and cylinder size indicated something in the range of 20 tons of force. The hot metal certainly moved quickly. The dinner fare was excellent and exceeded the crowds capacity to consume. One highlight (?) was BBQ beaver.

The first order of the business meeting was the election of board members. Ted Stout and Dominick Andrisani were re-elected, gaining 100% of the votes cast. Michael Wollowski resigned his position due to personal time constraints. Michael will continue to act as the IBA web master. I thank Michael for his past and continued support of the IBA. The board is seeking a candidate to fill the remainder of Michael's term. If you are interested in serving the IBA, please contact a board member.

IBA Officers selected at the business meeting:

Gary Phillips: President

Bill Conyers: Vice President

Keith Hicks: Secretary

Farrel Wells: Treasurer and Membership Chair

The business meeting had some very good participation from the audience. Gary Phillips presented the financial results from last year. The IBA had a good financial year primary based on the strength of the Conference. Conference fees and auction provided about \$2 for every dollar spent. The subject of youth memberships versus family memberships was discussed and taken under advisement. Additional discussions included IBA insurance coverage and potential enhancements.

Jennifer Hayden spoke at the business meeting. She is looking for blacksmiths to assist with the Girl Scouts 100th Anniversary Celebration on April 21 at Camp Dellwood. If you are interested in supporting this event, please contact Jennifer at [jnjhayden@yahoo.com](mailto:jnjhayden@yahoo.com) or **812-648-2557**.

As noted above, the IBA Conference and auction are key to our financial success. Please attend this great event and please donate items to the auction.

Visit the IBA website at: [www.indianablacksmithing.org](http://www.indianablacksmithing.org)

## 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

### **"Doc" Ramseyer Blacksmith Shop**

After starting up the forge fire, I worked on cross to be used to hold humming bird feeders. We did not have quenching water so had to stop often to allow items to cool. In the mean time I kept the fire going for others of us. Fred Oden brought tooling he had made for the making of tongs (as well as stock). It is my understanding an article will be sent to the Forge Fire to explain this procedure to all others (see note below). Larry and Glenda Whitesell made a double ended hanger. It could be fastened to top of steel fence post, making a hanger for song bird or humming bird feeder. Jimmy McClure along with Larry and Glenda made more hardy hangers to drive into the anvil stands, to clean up the floor and keep 1/2 and 3/4 tools separated.

The shop has an overhang giving a sizable area, so we could set up additional forges outside giving room for others. Just bring anvil, tools and project to share.

February, Harry Williams made a smaller size shepherds crook and JJ made Mokume Gane using a stack of quarters.

Keep the forges fire burning!

Charles Gruell

Editors Note: Fred Oden will be teaching a tong making class at Maumee Valley in August. Please attend to get first hand instruction.

## IBA Satellite Groups and News (continued)

### Rocky Forge Blacksmith Guild

Last months meeting was an open forge with lots of activity. Greg Searcy made a very nice hot cut that he donated to our club tool box for raffle. Guest, John Bennett, donated two pair of tongs for the tool box. John assisted a new member, Zachary Gaither, to make a knife from a railroad spike with the antler welding splatter that John is so well known. Kj helped Zachary put a proper ground edge on the knife. It turned out to be a very nice piece of work. Dick Fontaine had an old metal travel trunk meant for a model T, but to tall for his roadster, so with the help of Gene Hollingsworth they shortened it by 8 inches. They did such a good job it looked factory made. Gene does magic with sheet metal. Many other projects were done that day and we all had a great time.

The next meeting of the Rocky Forge will be at the Boy Scout camp southeast of Brazil. I am not sure of the actual name of the camp, but we will be there to give the Boy Scouts hands on experience at blacksmithing. After Scout leader, Dan Michael, made a plea for some help we just decided to move our April meeting to that site and help educate the future blacksmiths. Apparently it will be a large Scouting event with more than 70 Scouts and we are pleased to be a part of it. Anyone interested in pitching in please give me a call at 765-491-2194. We will be there at 8:00 A.M. on April 14th. The May meeting will be hosting the IBA on May 19th with Melvin Lytton (formerly with Conner Prairie) as our demonstrator. We will also have iron in the hat and an auction of blacksmith tools, shop tools, shop cabinets, etc. Don't miss this one.

Ted Stout

### Sutton-Terock Memorial Blacksmith Shop

March 10,12 Sutton Terock Shop opened at 9 AM.

Kestrel Little and Nathaniel Ieson made S hooks with Tim Pearson's help good job Tim. Charity Musselman a young lady that came to the shop a couple years ago to build a rose chandelier for her senior year art project in high school. She then went on to college to study animation has returned. She said that animation was boring and she wanted to get back into hands on blacksmithing. She made a leaf for our tree of friendship then helped on our state project. Welcome back Charity!

The rest of the day was spent on our state project with Austin and Andy Williams, Charity Musselman and Tim Pearson.



Robin Fitterling who made the motor mount and pulley for our power hammer came to visit us and is going to make us a set of flat dies for the hammer. Thank You Robin.

Hammered in Friendship

## IBA Satellite Groups and News (continued)

### Bunkum Valley Metalsmiths

The Bunkum Valley Metalsmiths met on Saturday March 3, 2012 and had another great day of blacksmithing with 21 people in attendance. The weather was nice, kind of chilly, but the sun was shining and it wasn't too bad to be using one of the outside forges. We had the big forge going inside the shop and 2 smaller ones busy outside. Shawn Gilley was making a scroll



trivet and finished all but banding the scrolls. Jim Malone was making and fitting a cold cut for one of his anvils and some more Crandall teeth. I don't think he will ever get done with the Crandall job as he has 3 more to make. Jerry Robinette brought a piece out of the 21 pound billet he worked on last time. This one he had twisted and was round.

He also brought a knife he made, also out of part of the original damascus billet. Aaron Baker was working on a damascus billet also. Gayle Mehler and Jim Staley were making tongs. Chuck Kryder was still working on anvil tools. The rest of us observed and did a lot of visiting with each other. We enjoyed a good pitch in lunch of chili, cornbread and desserts, and had a good time of fellowship and fun. Our business meeting was about preparing for the state meeting that will be held here on the 17th of March, we hope to see some of you then. All in all it was a great day of work, sharing, fun, food and fellowship. And again I say, "If you have too many irons in the fire....don't lose your temper :)

### Fall Creek Blacksmith Shop

March 24 th meeting was very busy. Project time! Our piece will have work by everyone , "experienced and novice alike". Everything went well till late in the meeting. I always thought my coffee was pretty good, till then. While cooling steel, while drifting holes, someone grabbed a cup off the bench and dipped water from the quench tub to use. One of the guys picked up the cup and took a drink before he could be stopped. They ask him how it was . He said , "cold and not quite as good as it was earlier". And then they told him it was Quench water. He was a little upset because they used his cup, but was a remarkable sport about the accident. We really have a great group of people ,that do some pretty nice work. I am very proud of them all.

## IBA Satellite Groups and News (continued)

### The Southern Indiana Meteorite Mashers



The Southern Indiana Meteorite Mashers met at Hidden Hill Nursery and Garden in Utica Indiana. Dave Kunkler and his wife Donna, Jason Hardin, Billy Merritt, Steve King and son joined Jeff Reinhardt at the season opening day at Hidden Hill. This wonderful venue has many many outdoor sculptures and interesting items and has a great deal of metal art on display. The public was welcomed with kite making and flying for kite making and flying for



the young and old alike. The blacksmithing demonstration was an advertised part of the festivities. Everyone brought display items and took turns forging and answering questions for the public. It was a very nice spring day, and in the slow moments we also took turns showing the other smiths what we do at demo's. In one slow moment Steve king and his young son took time to make a split cross, shown in photos by Dave Kunkler. The photos demonstrate the true problem with a fixed anvil height, made to fit Jeff, note how the anvil is a little too short for Steve and just a little too tall for his son:)



Next Meeting will be the last Saturday of April at Steve King's shop in Paoli, where our next attempt in forging big split crosses should be interesting as Steve has found 3" square stock. A 90# split cross should result, We hope!

### Jennings County Historical Society Blacksmith Shop

The Jennings County Historical Society Blacksmiths March meeting was at the home of Jim and Mary Lou Watts. Jim and Kevin Walsh started the fire at 8:00am. We got a late start because of the extra distance to travel. Kevin finished a very nice snail-leaf from a section of 1/2" x6" round stock. Kenny Dettmer noticed that Jim's new privy was lacking some hardware so he selected a piece of wrought iron strap, approx.1/4"x1". It ended as an excellent exterior door handle. Ray Sease wouldn't be outdone so he used some 1/4"x1" strapping to make an inside handle.(I hate to say, it did look really nice.) Charlie Helton made a much needed coat hook. We had a successful iron-in-the-hat, as many were starting their spring cleaning. We enjoyed a delicious meal, catered by our hosts and added to by generous patrons. Each of us must have added a few pounds! After a meal like that, all some of us wanted to do was take a nap (us old folks, anyway). Charlie Helton rounded out the day making a privy roll holder. That should put the new building in fine shape!. We had to check out Jim's buildings and swap stories before we broke up and called it a day. It was a very successful hammer-in and we had a great time. Thanks Jim and Mary Lou. Our next meeting will find us back to Vernon for the summer. Be sure to visit us if you can. Misery loves company , and boy, are some of us miserable! Nuff said. Paul Bray

## Maumee Valley Blacksmiths

Buckeye Farm Antiques, INC of Wapakoneta, Ohio has invited us to participate in their show which is held May 25th through the 27th at the Auglaize County Fairgrounds. Members of this group visited the 2012 Spring Tractor Show at the Coliseum and specifically invited the Machinists and blacksmiths to participate in their show. They said that they have nothing in the types of exhibits that we presented and they would really like us to be a part of their show. They have a sizable building that we can use as well as grounds where blacksmiths can set up. I personally have enough on my plate this summer, but invite any or all of you to attend this show. You can contact 937-596-6812 for more information. Please contact them directly if you have questions or are interested in participating. The Individual that contacted us is Gary Bradford, 1-419-733-6758, e-mail [gb-45@nktelco.net](mailto:gb-45@nktelco.net). I will have a copy of their flyer to show at our meetings.

John

## One Armed Blacksmith's Shop

Central Middle School has asked us to change the date of Spring on the Farm to Wednesday, May 16th and Thursday, May 17th.

*Julie Hughes  
Executive Director*



This year we will have 3 to 6 14-15 year old kids to do the interaction with the younger kids coming through. We will have the work area roped off so we can work without kids under our feet. We could have 2-4 blacksmiths each day working in the forge.

If anyone is interested please contact me.

Thanks

Timothy Metz

## For Sale Item: Gas Forge



Model 133-BNAT 400,000 \$600.00  
Made 1973-1983 Gene Davis 080  
574-817-0192 or 574-223-8603

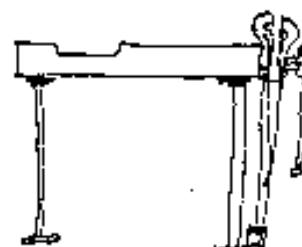
BREAK DOWN FORGE by Fred Oden

This forge is designed to be taken apart for travel and storage so that one person can move a larger forge alone. A vice bolts on and a blower and smoke box can either be free standing or bolt on also.

Material List

1 pc. 1/4" steel plate 36" X 32"  
 4 pcs. 1" black steel pipe 30" long threaded one end.  
 (See note at F regarding length.)  
 4 pcs. black 1" steel floor flanges.  
 16 - 1/4" X 1" bolts and nuts  
 3 - 1/2" X 1 1/2" bolts and nuts  
 13 feet 3/16" X 2" bar stock  
 1 - fire pot of your choice  
 1 - leg vice of your choice  
 1 pc. black pipe for socket at end of leg vice See F.

- A. Mount 4 floor flanges 1" in from corners of 1/4" plate using 1/4" bolts.
- B. Cut 3 pieces of 3/16" X 2" bar to form 3 pieces 3/16" X 2" X 2" (These will serve as pipe feet)
- C. Cut 1 piece of 3/16" X 2" bar 10" long. (This will serve as the forth foot and a base for the vice leg socket on right front leg.)
- D. Center 2" X 2" pieces on 1" pipe unthreaded ends and weld on the feet. Using the 10" piece do the same, welding the pipe centered at one end.
- E. Screw the pipe legs to the top and set upright. The leg with the long piece should be at the right front.
- F. Set the vice on the table so that the leg will be well on the long piece of right front leg. Drill and bolt in place. Make a socket for the leg and weld it to the long piece on right front leg.  
 NOTE: You may adjust length of pipe legs or socket to fit the vice leg length or you may adjust the vice leg length to fit the pipe length.
- G. 6" in from back cut a hole for your fire pot.
- H. Using remaining 3/16 X 2" bar, start at left of vice and tack weld bar as a side to the table. Heat bend corners. When complete weld fully. Cut 1 1/2" deep recesses on each side opposite the fire pot. (see sketch) Grind all rough edges.



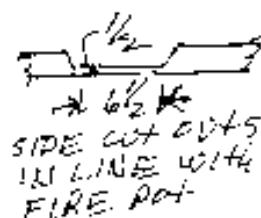
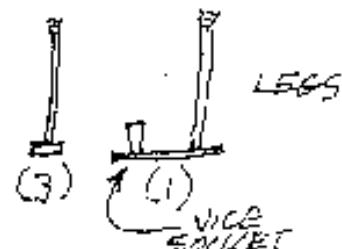
SIDE VIEW



FRONT VIEW



BOTTOM VIEW



FIRE POT DROPS  
 INTO TABLE  
 CUT OUT.  
 LUBRICATE ALL  
 THREADS TO  
 BE TAKEN  
 APART

Continued:

Break Down Forge by

Fred Oden

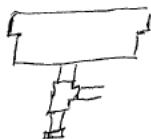
**Firepot can be made from a brake drum from a car or pickup.**

I put  $\frac{1}{2}$  inch x 1 inch bolts in leg holes.

Get 3 – 2 inch x 4 inch pipe nipples, 1 – 2 inch pipe “T” and 1 – 2 inch pipe cap.

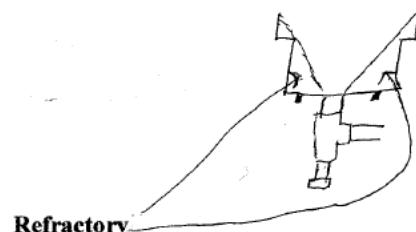
Weld 1 pipe nipple in center hole of brake drum, screw on 2 inch “T” then other nipple and cap.

See fig # 1



**Get refracting cement to line inside of brake drum.**

See fig # 2



**Add a blower of your choice.**

## **December IBA Board of Directors Meeting Minutes**

December 10, 2011

A board meeting of the I.B.A. was held at Chaz Kaiser's shop in Batesville In. on the 10<sup>th</sup> day of December, 2011.

There being a quorum present, President Gary Phillips called the meeting to order at 10:50 am.

Board members attending were Jim Johnston, Kenny Dettmer, Gary Phillips, Michael Wollowski, Dominick Andrisani, Ted Stout and Keith Hicks.

The Treasurers Quarterly Summary Report was read by President Phillips, and showed a total income of 22,570.37 total expenses of 12,043.66. Income less expenses was 10,526.71. Other assets were Savings 2923.57, and a C.D. of 21,929.17

A motion by Michael Wollowski to file the Treasurers Report as read, passed.

Tim Metz, of the One Armed Blacksmiths group asked the Board, if the I.B.A. would loan their group a good anvil to use, or if possible to provide funding for the purchase of one.

A motion by Michael Wollowski to buy an anvil from Ted Stout for 150 dollars maximum passed. The anvil will be loaned to the One Armed Blacksmiths group with an option to buy.

Meeting adjourned 12:08

## Patinas on Copper

By Dominick Andrisani

Copper is a wonderful metal for the creative blacksmith. It is soft under the hammer, corrosion resistant, and its natural color is quite attractive. An added plus is that copper can be chemically treated to achieve a wide range of surface colors called patinas.

The project I wanted to make was a wood and copper candlestick holder resembling a flower on a tall stem. Wood, which formed the base and stem of the flower, was turned on my wood/metal lathe. The copper flower consisted of three layers of sheet copper (21 gage, .028" thick) cut into the outline of petals and hammered into a three dimensional shape. The inner layer of petals held the candle. It was on these copper petals that I wanted to put various different colored patinas.



Natural chemicals in the air and rain (acid rain) will create a patina on copper and bronze by oxidation over an extended period of time. Shown below are three pieces of copper from an old gutter that oxidized over many years. From this you can get some sense of the colors that naturally occur and of the generally non-uniform coloring that is typical with patinas.

Manmade patinas are typically created in the shop by a multi-step chemical process that is not particularly obvious. To learn how to correctly handle chemicals be sure to consult the three references.



Natural patina on three pieces of copper gutter.

To safely apply chemicals that cause patinas you need the right chemicals and a safe place to apply them without hurting yourself. The figure below shows the corner of my shop that I converted into a "chemistry lab". Note the fan and open window required to insure adequate ventilation.



Shop "chemistry lab" with fan, open window and gloves.

I bought a "Patina Sample Kit" of chemicals in 6 oz. bottles from the Sur-Fin Chemical Corporation for \$95 (Reference 3). This consisted of 6 different patinas, 2 lacquers, and a metal cleaner (Brush N. Clean). The products I used for this article are shown in the following photograph.



An array of chemicals and metal cleaners.

The first step in getting a consistent patina is a thorough cleaning the metal. I cannot overemphasize how important this step is. **Clean the copper well.** The pieces of copper I needed to clean had been hammered, work hardened, and annealed several times, and had lots of black scale on the surface and pounded into the surface. I followed this multi-step cleaning procedure.

- Don gloves and never touch the copper with bare hands once cleaning is started.
- Clean the copper in a mild acid pickle (like pH Down available at your favorite pool store) then rinse thoroughly in water.
- Use a non-chlorine abrasive cleaner to get the last of the surface scale off the copper. At this point the copper was perfectly clean and shiny.
- Brush on “Brush N Clean” and wipe off with a clean wet cloth.

With the metal cleaned and in my gloved hands, I went to my “chemistry lab” to apply the chemicals to bring out the patinas. I used these chemicals from Sur-Fin: “Verde Green Patina” for the outer layer of petals, “Blue Green Verde Patina” for the middle layer of petals, and “Superantik 30 Antique Finish” on the inner petals. After several failed attempts with the green patinas, I learned the following successful coloring procedure.

- With all chemicals and metal at room temperature, apply the chemical with a brush. Then wipe it off with a paper towel or clean cloth. Wiping off is important so that there is not too much oxidation that will simply flake off or wash off in the next step.
- Wait an hour or so for the patina (greenish color) to form. Rinse thoroughly in running water. Use your gloved fingers to rub the patina as you rinse. If the patina is going to rub off you might as well do it now.
- Set the copper aside and wait another hour. The patina will again form from residual chemical that remained after rinsing, and this time the patina should be more lasting. Rinse again under water and rub as before.
- Repeat this process until you get a patina that will not disappear when rubbed during rinsing. If the patina is not vibrant enough, apply some more chemical and start the coloring procedure over again.
- As a final step I applied a NC-8 Flat Lacquer (from Sur-Fin) to the completely dry colored copper. The results are shown below. Imagine and Patinate!

### References

1. Charles Lewton-Brain, *Patinas for Small Studios*, published by the author, 1985 (available in the IBA library), revised 2007, available from Brain Press (<http://www.brainpress.com/Books.html>).
2. Richard Hughes and Michael Rowe, *The Coloring, Bronzing and Patination of Metals*, Watson-Guptill Publications/Whitney Library of Design, 1991.
3. Sur-Fin Chemical Corporation, Los Angeles, CA, 323-262-8108, [www.surfinchemical.com](http://www.surfinchemical.com).



Lower side of petals. Green patina was used on the left.



Upper side. Blue-green patina was used on the right.



Finished flower with three different patinas.



## The **FORGE FIRE**

Newsletter of the  
Indiana Blacksmithing Association,  
Inc.

**Bill Kendrick** *Newsletter Editor*  
1280 N CR 900 W  
Seymour, IN 47274

First Class Mail

Address Correction Requested  
If Undeliverable return to sender  
With original address legible

### **Whitewater Valley**

April 21

**Big Cedar Forge, the residence of Joyce Roell & Bobby Hoff**

**Directions: 5171 State Road 252, Brookville, IN 47012. Located at the intersection of Big Cedar Road and SR 252.**

For more info call Keith Hicks at 765-914-6584.

### **Rocky Forge Blacksmith Guild**

May 19

**8525 West 700 South, 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).