

BOARD OF DIRECTORS

Gary Phillips '14

President:
14800 N SR 167 N
Albany, IN 47320
PH #(765) 789-8316
behere@netdirect.net

Dave Childress '11

Vice President:
2081 W 200 N
Dana, IN 47847-8060
765-492-4904
trollkeep@gmail.com

Ray Sease '11

814 S O'Brien St.
Seymour, IN 47274-2436
812-522-7722
anvil.8@hotmail.com

Dominick Andrisani '12

3608 Capilano Drive
West Lafayette, IN 47906-8869
PH #(765)463-4975
andrisan@purdue.edu

Ted Stout '12

8525 W 700 S
West Point, IN 47992-9258
PH# (765) 572-2467
stout8525@tds.net

James Johnston '13

Education Chairman:
806 Twyckingham Lane
Kokomo, IN 46901-1885
(765) 452-8165
kokomoblacksmith@comcast.net

Keith Hicks '13

Secretary:
7096 Dorrel Rd.
Brookville, IN 47012
(765) 647-0019
woodpecker321@hotmail.com

Michael Wollowski '14

238 Barton Ave.
Terre Haute, IN 47803
(812)232-2591
wollowsk@rose-hulman.edu

Librarian:

Larry Rosentrader

8715 E. 375 N
Churubusco, IN 46723-9501
260-693-3267
rosentrad@cs.com

Editor:

Bill Kendrick

1280 N 900 W
Seymour, IN 47274
(812) 445-3009
bill.d.kendrick@cummins.com

Treasurer and membership secretary:

Farrel Wells

8235E 499 S
Dunkirk, IN 47336-8807
PH # (765) 768-6235
fwells@verizon.net

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.

The Indiana Blacksmithing Association, Inc., its staff, officers, directors, members, and hosts and the *Forge Fire*, specifically disclaim any responsibility or liability for damages or injuries as a result of any construction, design, use, manufacture or other activity undertaken as a result of the use, or application of, information contained in any articles in the *Forge Fire*. The Indiana Blacksmithing Association, Inc. And the *Forge Fire* assumes no responsibility or liability for the accuracy, fitness, proper design, safety, or safe use of any information contained in the *Forge Fire*.

The Forge Fire is the newsletter of the Indiana Blacksmithing Association Inc. (IBA) IBA is an affiliate of the Artist-Blacksmiths Association of North America Inc. Permission is granted to other similar non-profit organizations to reproduce uncopyrighted articles originally appearing in *The Forge Fire* provided credit is given the original source.

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 <i>Forge Fire</i> for monthly IBA revisions. Contact John Wendel (812) 343-1969 if you are willing to host or demonstrate for IBA	
Sept 18 2010	JOHN ZILE SHOP BOARD MEETING
October 15-17	30TH ANNIVERSARY CELEBRATION TED & CAROL STOUTS
Nov 20 2010	WABASH VALLEY FOWLER PARK
Dec 11 2010	CHAZ KAISER BOARD MEETING



INDEX

PG 3
PRESIDENTS
MESSAGE

PGS 4-6
SATELLITE
NEWS

PG 6
TRAIL OF
COURAGE

PGS 7-11
CHASING &
REPOUSSE

Dates to Remember

Sept 18
Hammer In at
John Zile's

Sept 24-26
Quad State at
SOFA

Oct 15-17
30th Anniversary
at Ted & Carol
Stout's

Editors Message

Update: This months hammer in and board meeting will be held at John Zile's shop in Middletown, lunch will be at the Iron Kettle restaurant. Schedule conflicts forced us to move from both St Joe Valley and Wabash Valley. Please spread the word to anyone who might show up at the wrong location. Also give John a big thank you for offering up his shop at the last minute.

I do not have much to space to fill this month as we have received plenty on news around the state. Check out the fine article on chasing and re-pousse supplied by Jim Johnston.

I am looking forward to news and photos from this years State Fair. I know the weather was extremely hot, but verbal comments indicate everyone had a good time.

30 YEAR PARTY TIME IS GETTING CLOSER

Be sure to mark your calendars for the **October 15, 16, 17th** celebration of the Indiana Blacksmiths Associations 30 years in existence. It all started with meetings at Conner Prairie culminating in our organization becoming a chapter of ABANA in 1980. The celebration will be at Ted and Carol Stout's home near West Point.

Their place is seeing some change in the last month: a new shelter 36' by 36' was built between the shop and my warehouse barn, the old shed next to the shop was removed, tons and tons of metal has gone to the local scrap yard, trees are being trimmed, junk is being disposed, cement poured, stone steps set and the soy beans are turning for an early harvest (parking space). A caterer for the Saturday night meal is planning a delicious feast. Carol is sorting through ideas for other meals. We hope to see a large turnout. Already we have commitments from many campers and encampments. Make your plans to join in on the festivities for the weekend or at least for Saturday. On Saturday we will have a special occasion that I promise you will not want to miss!!!

Call Ted at 765-491-2194 or email us at stout8525@tds.net for more information, answers to your questions or suggestions.

Ted

Visit the IBA website at: www.indianablacksmithing.org

FROM THE PRESIDENT

Greetings, this is a good time of the year. The summer heat is about over and the beauty of the fall leaves will soon be here. For some of us it's cooling off enough to begin spending more time at the forge. The next couple of months will be busy for the IBA. Our September hammer-in and board meeting will be at John Ziles shop north of Sulpher Springs. Lunch will be at the Iron Kettle in Sulpher Springs. We always have a good time at John's place. We had to move the meeting at the last minute due to scheduling problems. Thank you John for hosting us with short notice.

Next month is a major event for us. The IBA is having a 30th birthday party at Ted Stouts shop close to Lafayette. This will last for three days, from October 15-17. We will be able to camp (primitive) Share many meals with each other. You may bring forges to set up in Ted and Carol's woods. We will spend the weekend forging and eating and visiting and eating and iron-in-the-hat and eating and other surprise events. Oh did I mention there will be food present. So come and join us for a wonderful weekend.

It is time to think about board elections. I know it is early but time flies and with lead time for getting ballots out and back it is not that far away. The two board members whose term will expire in March of 2011 are Dave Childress and Ray Sease. At this time I don't know if they will run for a new term or not. Be thinking about who you would like to see elected next March for the 2011-2015 term of office.

We had a great conference this year at Tipton. We took a risk by putting on a conference that cost more than normal for our 30th conference. It paid off. For the first time in a few years we made money at our conference. After expenses, we made over \$4500. Thank you to all who helped with the conference. We couldn't have done it without you. I want to give a big thank you to J J for his work as the conference chairperson. He worked hard for us so thank him when you see him. He is already at work on the 2011 conference. We have some tremendous smiths coming as demonstrators so mark your calendars for June 3-5, 2011. Please note we are returning to our regular weekend of the first weekend in June for our conference.

Once again come to Ted and Carol Stouts Oct. 15-17 for our party. Keep your fires hot and clean.

Gary Phillips, President IBA

Sutton-Terock Memorial Blacksmith Shop**North Central Region****Fulton County**

Meetings of the Sutton-Terock Memorial Blacksmith Shop are held on the second Saturday of the month starting at 9 a.m. at the Fulton County Historical Society Museum. The museum is located four miles north of Rochester on US 31. For information, call Fred Oden, Forgemaster & Treasurer, at (574) 223-3508, or Dennis Todd Secretary/Reporter at (574) 542-4886.

Fall Creek Blacksmith Shop**East Central Region****Henry County**

Meetings of the Fall Creek Blacksmith Shop are held on the fourth Saturday of the month starting at 10 a.m., with open forge at 9 a.m. at the residence of John Zile in Middletown. For more information contact John at (765) 533-4153 or Larry Singer at (765) 643-5953. Or Farrel Wells at 765-768-6235, flwells@verizon.net

Maumee Valley Blacksmiths**Northeast Region****Allen County**

The Maumee Valley Blacksmiths and Blue River Blacksmith Guild are a merger of two of our satellite groups. They Meet on the first Saturday of the month at the Maumee Valley Steam Association Grounds in New Haven, Indiana. Call Clint Casey at 1-260-627-6270 for more information.

St. Joe Valley Forgers**North Central Region****St. Joseph County**

Meetings of the St. Joe Valley Forgers are held on the 4th Saturday of the month starting at 9 a.m. at the residence of Bill Conyers in South Bend. For more information contact John Latowski at (574) 255-6209 or Bill Conyers at (574) 277-8729.

The Southern Indiana Meteorite Mashers**Southern Region****Orange County**

Forgemaster Billy Merritt (812)338-2876, Treasurer Steve King (812)797-0059, Secretary Shawn Gilley(812)-486-9113

Whitewater Valley Blacksmiths

Meetings of the Whitewater Valley Blacksmiths are held on the second Saturday of the month starting at 4:00 p.m. They meet at Big Cedar Forge, the residence of Joyce Roell & Bobby Hoff, east of Brookville on SR 252. For more info call Keith Hicks at 765-647-0019.

One Armed Blacksmith's Shop**Johnson County**

Meetings of the One Armed Blacksmith's Shop are held on the 1st Saturday of the month starting at 9am. For more information contact Tim Metz at (812)447-2606 or tim.metz@cummins.com.

Update: September IBA hammer in will be held at John Zile's shop.

Rocky Forge Blacksmith Guild**Northwest Region****Tippecanoe County**

Meetings of the Rocky Forge Blacksmith Guild are held on the second Saturday of the month starting at 9 a.m. Meetings are held at the home of Ted and Carol Stout, approximately 8 miles south of Lafayette. For more information contact Ted Stout at (765) 572-2467.

September Meeting at Ted's Shop

Seems like yesterday we were talking about the Illiana Show and the State Fair, now they are all behind us. This summer just flew by! Now its September and time to start our fall and winter fun time blacksmithing for ourselves. (I know that sounds so selfish.) I always enjoy the cooler weather when working around a hot forge.

Our next meeting is September 11th at Ted's expanded shop with our featured demonstrator being Greg Searcy who will show us how to make wizard heads and the tools to do the job. Greg is a good blacksmith and a good teacher so we should learn a lot. After his demonstration we can then adjourn to the forges and practice what Greg was teaching. He makes his tools from 1/2 inch spring so if you have any laying around bring it along. Also, be sure to bring iron-in-the-hat material.

Carol is going to make barbecue sandwiches for lunch and would like for you all to bring a covered dish to share.

Coffee and doughnuts will be ready by about 8:30 and a short meeting at around 9:15 followed by Greg's demonstration. See you all on the 11th.

Ted Stout, Forgemaster

Jennings County Historical Society Blacksmith Shop**Southeast Region****Jennings County**

Meetings of the Jennings County Historical Society Blacksmith Shop are held on the second Saturday of the month starting at 9 am in downtown Vernon. For more information contact Ray Sease at (812) 522-7722.

The Vernon shop opened at the crack of dawn, as usual. Our attendance was down considerably, hopefully, only because of the State Fair going on. Time was spent checking tinsel strength of various media, determining ability to sewage various forms on different size and shapes of bar stock. Time was spent discussing the project size, shape, and general description for the next conference. Many thanks to those who donate to the iron-in-the-hat because this is our primary way of raising funds to finance our group. Anyone wishing lifetime membership in the Jennings County Historical Society Blacksmith Shop must attend (for the rest of your life.) That is the only requirement, subject to change. Thanks also to Frank Hall for his generous donation. Anyone else wishing to make a donation may contact Charlie Helton.

Wabash Valley Blacksmith Shop**West Central Region****Vigo County**

Meetings of the Wabash Valley Blacksmith Shop are held on the second Saturday of the month starting at 9 a.m. Meetings are held at the blacksmith shop in Fowler Park, approximately 7 miles south of Terre Haute. For detailed information contact Max Hoopengartner at (812) 249-8303 or Rick Helton at (812) 894-3172

We had about 15 folks show up over the course of the day. While the weather was somewhat warm, we nevertheless had a good time. We had three forges running throughout the day. Jim Rodenberger made a coal rake from a bolt. Some of the threads showed and added a nice touch to the piece. Ben Steppe worked on a J-hook. We also learned that a poster he made for the Vigo County Fair was accepted for presentation at the State Fair. We wish him luck for the presentation. Tex Ritter worked on a handle for a loom. One of the ladies working in the pioneer village was interested in a removable handle and asked Tex to make one. Michael Wolowski was working on pieces for a chandelier. We broke for a delicious lunch followed by a business meeting. During the meeting, we discussed the proposed change for the Hammer-In date. We agreed in principle and asked Rick Helton to contact the village about availability. Based on several pieces of information received during the week, it was decided that we are not in a position to hold the September Hammer-in. As such, we will meet during our regularly scheduled meeting on the second Saturday.

Trail of Courage invites blacksmiths

The Fulton County Historical Society invites all blacksmiths to the 35th annual Trail of Courage Living History Festival Sept. 18-19. It is on the FCHS grounds four miles north of Rochester on US 31. Volunteers are needed to demonstrate blacksmithing at the Sutton – Terock Memorial Blacksmith Shop at the north end of the grounds next to the round barn. Several blacksmiths set up and demonstrate re-1840 style in the festival too. Free admission to the festival if you help demonstrate – get your participants badge by registering at the museum. Food is for sale in the festival at the south end of the grounds. All the foods are cooked over wood fires: buffalo burgers, ham & beans, barbeque, sweet potato pie, popcorn, sweet corn, fudge, apple sausage, fry bread and Indian tacos, root beer, ice cream with fruit toppings, chicken & noodles, vegetable soup, etc. Historic camps and trading, contests, canoe rides, two stages with music and dance from 10 a.m. to 6 p.m. Sat., 10 a.m. to 4 p.m. Sun. Free tram rides from museum to the festival entrance. Come and enjoy!

Thanks.
Shirley Willard

This article is written by Valentin Yotkov and appeared on the <http://www.Ganoksin.com>. Also check out <http://www.valentinyotkov.com/MR>. Yotkov is based in Brooklyn NY but teaches extensively Europe and the US.

If you have not yet fallen in love with Chasing and Repoussé, most likely you have never had an opportunity to learn these companion techniques. Chasing is magic, it is beautiful and exiting, and it is ADDICTIVE. Chasing is the FINE ART of metalsmithing. Many of us have stood speechless before masterpieces of Chasing and Repoussé displayed in museums. We marvel and admire the skills of the ancient Thracian and Scythian goldsmiths and secretly dream of creating such beauty with our own hands. At the same time most of the major art-oriented publications unfairly overlook the increasing growing interest in these techniques and the demand for more information on the topic. The fact is that over the past several years, Chasing and Repoussé have been experiencing their modern Renaissance and have once again become an important element of contemporary jewelry and hollow ware design. Chasing can add dimension and a distinctively unique touch to your work. It offers endless variations of design and surface embellishment. An introduction to this technique can change your life and the way you work forever.

What is the difference between chasing and repoussé? In simple terms, working on the front of the piece only is called chasing. Repoussé is the combination of tracing the design on the front of the piece using liners (tracers), raising a relief by pushing from the back using different punches, and finally working the details on the front of the piece. This method is the classical repoussé technique. There is also a "direct" repoussé in which the design is drawn or transferred on the back of the piece, and the relief is raised directly from there, thus eliminating the initial tracing of the design as described in the definition of chasing. Direct repoussé requires significantly higher skills, but it saves time and is more appropriate for the execution of contemporary designs.

I invite you to pay an imaginary visit to the chaser's studio. There we see a small but sturdy table, usually 29" to 31" in height. The table is close to the window as defused sunlight is best for chasing on non ferrous metals. On the table is an 8" diameter cast iron bowl over a round rubber pad. The bowl is filled with Red German pitch and positioned over one of the table's legs to avoid vibrations during chasing. A beautiful set of chasing tools is placed face up in a simple can and beside it - a couple of chasing hammers. At the far end of the room we spot a medium size silversmith's torch, a combination of natural gas and compressed air. The torch is installed under a small hood built of sheet metal or aluminum, which is connected to an exhaust fan for adequate ventilation. On the walls - small pieces of paper with hundreds of drawings, and maybe a few colorful posters depicting inspiring artworks from a gallery or museum collection. Some of the artist's latest works are proudly displayed in a showcase. This is the ideal picture of a chaser's studio, a perfect set up which requires minimum investment and provides the artist with the necessary comfort. From our quick studio tour we notice that the necessities for the chaser are the pitch bowl, the chasing tools and hammers, and the appropriate size and mix combination of the torch.

The pitch In my opinion the best pitch available on the market today is the Red German pitch. It can be purchased from Allcraft, New York (Tel: 800-645 7124) and is perfect for chasing small scale designs on copper, silver or gold. It provides firm support for the metal during chasing, and yet it is soft enough to allow embossing a shallow relief using the repoussé technique. It melts at a relatively low temperature and can be safely manipulated and shaped by hand. As a precaution, I would recommend you dip your fingers in water before attempting to handle hot pitch. Remember, if the surface of the pitch appears glossy, it is too hot to touch.

If a gas line is not available in your studio, you may substitute by using the largest tip of the acetylene torch, but be extremely careful not to overheat and burn the pitch. If overheated, pitch turns into carbon and loses its ability to support and adhere to the metal. Remove the burnt area immediately to avoid further contamination of the pitch bowl. A regular heat gun is also sufficient for melting or removing pitch from your work and can be purchased from most hardware stores. For projects requiring very soft, or very hard pitch use the pitch supplied by the North West Pitchworks in Washington. (Tel:360-715 1772) If possible, avoid using the old black pitch, containing tar. It is very toxic, produces a lot of smoke and will burn your skin severely upon contact. Often, when melted, it flows uncontrollably and covers most of the metal surface, leaving no space for the design.

The pitch bowl An 8" diameter cast iron bowl is our best choice. It comes in the shape of a half sphere along with a round rubber pad. Because of its shape and weight, the bowl can be positioned in any convenient angle for best comfort while working. Rubber pads are often too large in diameter which causes the bowl to shift easily from its position. This can be eliminated by folding and placing an old hand towel under the pad. Using the stainless steel bowls for chasing should be avoided as those are very light in weight. For chasing large pieces, a large cast iron frying pan can be used. You may also build a wood frame with the desired dimensions and attach it to a piece of plywood. Melt the pitch in a separate container and pour into the frame. A minimum of 3" layer of pitch is necessary.

To prepare the pitch bowl put the pitch in a plastic bag, break into small chunks and put it in the cast iron bowl. Set your kitchen oven at 350F. Put the bowl with the pitch on the middle rack over a sheet of aluminum foil. In approximately 30 - 40 min. the pitch will melt. Depending on the actual temperature in your oven, the melting could take a bit longer. Wait until the surface of the pitch becomes smooth and level. Tap carefully with a piece of wood on the outside of the bowl to force the air out of the pitch. Add more from chunks of pitch, if necessary, to fill the bowl up to about 1/8" from the top. Do not overfill. Avoid any spills on the outside of the bowl. Do not attempt to handle the hot bowl and pitch and do not leave the pitch bowl in the oven unattended. Once the pitch is melted and ready leave the oven door open and let the pitch air-cool for several hours.

Chasing hammers are truly unique in design. The large, flat, or slightly dome face on one side helps the artist aim and strike the back of the punch without having to look at it. Attention should always be focused on the working end of the tool that is in contact with the metal. The other side of the hammer is shaped like a bowl and can be used when raising a larger area of metal is necessary.

We need at least two hammers - one relatively light in weight, the other heavier. The light hammer is used for tracing and chasing, the heavy one for embossing or raising the relief. For small jewelry designs, especially in gold, I would recommend the use of chasing hammers # 22 and 26; for larger designs and/or hollow ware use #26 and #32, respectively.

When you purchase your chasing hammers, ask for the ones with the pistol-shaped handles. They fit better in the palm of your hand and are by far more comfortable than the round shaped ones. The handle of the smaller hammer should be filed down at its narrowest part to about 2/3 of the original diameter. This will provide a springy action and allow the hammer to bounce back after striking the punch. It also reduces unwanted vibrations as well as the stress on your wrist. An interesting suggestion made by Alan Revere was to burn the varnish of the hammer's handle and sand the wood to a nice finish. The handle would then absorb the unpleasant perspiration from the hand which results in better control over the hammer.

Chasing tools: If you are seriously determined to learn Chasing and Repoussé, you need three things: patience, good instruction and quality tools. A good set of chasing tools is your most valuable possession, your personal treasure. Always use the right tool for the right job, never substitute with other less appropriate shapes or sizes. Take the time to make your chasing tools by hand. This is a slow, meticulous process, but your efforts will be rewarded. Make 3 to 5, even 7 sizes of each tool. This will give you the ability to execute any size designs ranging from small jewelry to large hollow vessels. If you work with jewelry only, or hollow ware only - 3 to 5 sizes would be enough.

Tools should be made of the smallest appropriate size steel stock. The most commonly used sizes are those between 1/4 " and 1/8 " (both round and square) cut into 4" to 4 1/2 " lengths. Shape the tool roughly on the 36 grit grinding wheel, then continue to work by files, 400 and 600 grit sand paper, and at the end polish with steel compound. Polishing will eliminate even the slightest imperfections.

All tools must be hardened by heating to a bright orange color and then quenching immediately into oil or water, depending on the type of steel being used. Hardening makes the tools brittle, therefore they must be tempered as well. Clean the metal by sanding until its natural color is revealed. Heat the hardened end to a light straw color and quench again.

After the tools are finished, you may wrap them with an electric splicing tape or a tennis racket tape. This will increase

the size of the tool (but not the weight) and will make it safer and more comfortable to the hand.

Chasing tools can be divided into 5 main categories: Liners, Raising Punches, Planishers, Matting Tools and Stamping Tools.

1. Liners are generally used for chasing straight or curved lines. They have a relatively sharp edge on the working end. We need one set of fine liners and a set of heavy, blunt liners.
2. Punches are used to raise the design from the back during the repoussé process. These tools are rounded, with soft curves and no sharp edges. The surface of the working end is roughened by sanding, or filing in order to grip and move the metal easier. Shapes may vary, but a basic set should at least consist of an oval, round, square, tear drop, rectangular and half-round punches.
3. Planishers are mostly used to smooth out parts of the design, to define the details and to create a contrasting, reflective finish on the metal surface. They vary widely in shape and can be round, square, oval, diamond, and even a "hot iron shape".
4. Matting tools help us achieve different "colors" or textures on the metals surface. The working end of those tools is textured by hammering it with a center punch, or by filing or even cutting shallow lines or other patterns using a blade. Those patterns are then imprinted into our metalwork by rapidly striking the tool with a hammer. Care should be taken not to strike twice over the same spot as this would change or ruin the matting effect. The most common shapes for matting tools are diamond, round, square and rectangular.
5. Stamping tools have the widest variety of shapes. We use them to stamp simple designs such as hearts, leaves, stars or even circles by a single hammer stroke. The tool is usually held vertically in relation to the metal. Very little experience is required for this type of chasing and such decoration, unless carefully designed, often has little or no artistic value.

Another unique tool, the snarling iron, is often used for raising designs on hollow pieces which have a small neck opening and the inside of the vessel can not be accessed with regular chasing tools. The snarling iron has a long arm bent at a 90 degree angle at the working end, which is slightly domed and polished. One side of the tool is secured in a vise while the other side is placed inside the vessel, exactly under the area to be raised. The tool is then struck with a heavy hammer causing the tip to vibrate and raise the metal. Once the general raising is completed the vessel is filled up with pitch and the design finished by chasing from the outside. Using the snarling iron requires advanced skills, precise control over the tool and fine coordination between hands.

Lee Marshal from Bonny Doon Engineering, Inc. is currently working on developing an automatic snarling iron. Although I am, in general, against using machinery in producing and decorating designer hollow ware, I believe that this one will help significantly reduce the physical effort, involved in this process without affecting the value of the artwork. I myself would definitely like to give it a try.

There are a number of other tools and materials which can be used in Chasing and Repoussé. Some of those are brass and wooden punches, sandbags, leather and rubber pads, steel and lead blocks, plasticine. Of course, no matter how simplistic this sounds, I must say, the best tools are our own hands. No machine can ever produce the beauty, and the warmth of a handmade piece. I love doing things "the old way" and seek to revive and preserve the precious skills of our ancestors. I am happy to share my knowledge and experience with everyone who is eager to learn. Here are the different stages in the execution of a repoussé design:

The first important step is preparing the metal. Usually copper and silver come from the supplier dead soft. If the metal is hard, anneal it. Always work on a clean, grease-free and oxidation-free surface. Cut the metal to a size which will allow at least ½ inch space between the design and the outside edges. Bend all four corners at 90 degree angles, approximately ¼" from the corner. Coat the back of the piece with mineral oil, or regular Chap Stick (suggested by Anne Larsen Hollerbach). This will help you remove the metal from the pitch easier after the chasing is done. Heat the pitch with a soft flame until it melts approximately ¼ " below the surface and place the metal in the middle of the pitch bowl. Press gently to force out any air pockets trapped between the pitch and the metal. The pitch will also flow over the edges and keep the metal securely in place. You may speed up the cooling by placing the bowl under running water for 3 to 4 minutes.

The second important step is transferring the design. Graphite carbon paper works best on metal. Be sure to have the carbon paper with the appropriate side down and slide it under the drawing. Transfer the design onto the metal as accurately as possible, especially if it consists of a repetitive pattern.

You are now ready for the initial chasing of the outlines of the design. Fine liners are used for this chasing. Hold the liner in your right hand if you are left handed and in your left hand if you are right handed. Place the tool over a line, tilt the top end of the tool slightly away from the direction in which you would like it to move and tap lightly with the hammer until the tool starts moving. Chased lines should be deep enough so that they can be visible on the back of the metal when the embossing is to be done. Hammer frequently, but move the tools slowly to create a smooth, evenly deep and wide line. With a little practice you will be able to follow the curves of the design and successfully complete the initial chasing.

To remove the metal, carefully heat the surrounding pitch and lift using an old screw driver or any blunt tool. Keep heating the metal and remove as much of the pitch as possible, allowing it to drip over the bowl. Wipe off the remnants with a cloth and clean completely with lacquer thinner. At this time bend the four corners of the metal in the opposite direction so they can be dipped into pitch while the back of your work is faced up. Remember to coat the metal with mineral oil or Chap Stick. Heat the pitch again and place the metal in the middle of the bowl. Cool under running water and then wipe off excess water carefully with a towel to prevent your chasing tools from rusting.

You are now ready to start embossing the design. Select the appropriate shapes and sizes of raising punches. Raise the design using the heavier hammer, accurately following the projections of the originally chased lines as a guide. Be careful not to raise any areas which are part of the background. Chasing is not about stretching the metal - it is moving it. We move the metal towards the deepest parts of the relief, where it is needed the most.

Raising should be done gradually, in steps. Do not attempt to reach the desired depth at once. "Listen" to the metal, often the metal itself offers interesting suggestions and tells you which way to go. A piece of plasticine pressed into the raised areas will take the impression and give you a pretty good idea about what the front of your work looks like. If raising a high relief (over 1/2") you may have to anneal the metal and mount it back on the pitch bowl to continue without tearing.

Once the raising is completed, take the work out of the bowl. While the remaining on the metal pitch is still hot, wipe it off with a cloth or paper towel, and then heat the metal with a hot, blue flame until the pitch remnants burn and turn white. The heat will also anneal the metal which was hardened by the raising. When working on sterling silver, do not burn the pitch. Dissolve it with lacquer thinner and coat the silver with flux before annealing, to prevent fire scale.

If you are satisfied with the raised image, prepare the work for the final chasing. It is now critical to fill up the depressions on the back of the piece with pitch for support during chasing. Place a small amount of pitch into the depressions and heat with the torch or heat gun until the pitch melts completely. Tap the metal gently to let the air out of the pitch and then let cool. Mount the work, face up on the bowl.

The final chasing is the most important and exiting part of the work. Everything we have done so far is only a preparation for this final stage in the execution of the repoussé design.

Begin with re-chasing the outlines of the design. This time use the set of heavy, blunt liners and the light weight hammer. Those liners, which are not as sharp as the fine ones, displace metal fast without further thinning and cutting it. They will define the design and raise the relief even higher.

From now on any shape and size chasing tools can be utilized. Use all your skills, talent and imagination. Put your heart into the work and create the most beautiful piece of art by shaping, planishing and texturing the metal.

There are several important art canons, or rules we must follow while designing and executing our project. They are all about creating contrasts within the work, and if you apply them promptly, the artistic value of your work will increase dramatically. Create a contrast between high and low relief, contrast between wide and heavy, and narrow, tapering details, between deep and shallow lines, planished and unfinished surfaces, different textures, even between the contrasting colors offered by the patina.

When your work has been completed, remove the metal from the pitch, clean with lacquer thinner and use as part of a necklace, maybe a brooch a belt buckle, picture frame, or a box lid. Chasing and repoussé can be applied to any kind and style of jewelry or hollow ware, from small rings to large vessels, trophies, wall panels, even furniture. Interior designers are yet to discover the beauty and the endless possibilities offered by using hand made accessories, decorated with chasing or repoussé.

Another important application of the technique is chasing over cast pieces, mostly solid silver or bronze sculptures. Casting reduces the sharpness of the original image. Important details such as the texture characteristics representing different materials and surfaces are often completely lost. Chasing is the only way to restore those characteristics and bring the cast image as close as possible to the original model. The tools used on castings are usually larger and harder than the regular chasing tools. A high level of expertise is necessary for this type of chasing.

As with any jewelry and metalsmithing technique, safety in chasing should always be taken under consideration. Follow these few simple rules to prevent doing any harm to your hands and body. Remember that if practiced properly, chasing is completely safe.

1. Always wear eye protection while you chase. The back of the chasing tool gets hard from the constant hammering, and if a piece of the steel chips off, it could fly in any direction and at a great speed. Grind the back of the tools to remove the mushroom shape, caused by the hammering, as soon as it begins to split.
2. Your grasp on the tool should not be too hard, for this may damage the joints in your fingers. For added comfort and safety wrap the tools with tape as described earlier.
3. Give your hands a ten-minute break for each hour of intense chasing.
4. Keep your back straight and both feet on the floor.
5. Position the pitch bowl at chest level, not too high, not too low, to avoid having a pain in your shoulders, spine or neck. Once you find that perfect level, adjust the height of the bench, or the chair.
6. Use adequate ventilation when melting and especially when burning the pitch off the metal. Use lacquer thinner outdoors only, if possible.
7. Dip your fingers in water before handling hot pitch.
8. Make sure you have plenty of light at the bench. Day light is preferable.

And the last but not least important rule: choose your instructor carefully. Taking one class or a workshop provides a basic knowledge of chasing and repoussé, but does not make anyone a teacher. Even the most enthusiastic student could be easily discouraged by an instructor's lack of professionalism or experience.

The information presented in this article is a tiny, little piece from the universe of knowledge, technical skills, tricks and tips, which we simply call Chasing and Repoussé. For many of us these techniques have become a life-long passion. Others are yet to discover the beauty, and the excitement of sculpting images directly in metal. One thing is for sure - without chasing and repoussé, metalsmithing would never be complete.

Article provided by Jim Johnston with permission from the author.



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

September 18 Hammer In and Board Meeting

John Zile's Shop

3380 W 650 N, MIDDLETOWN, IN 47356

LUNCH WILL BE AT THE IRON KETTLE IN SULFUR SPRINGS.

SULFUR SPRINGS IS 3 MILES WEST OF IN. 3 ON US 36 AND APPROX. 12 MILES EAST OF PENDLETON ON US 36. GO NORTH AT THE FLASHING LIGHT (300W), TRAVEL NORTH FOR 1 1/2 MILES, TURN LEFT (WEST) ONTO 650 NORTH. JOHN'S HOUSE IS THE FIRST DRIVE.

CALL JOHN AT (765) 533-4153 IF YOU HAVE ANY QUESTIONS.

October 15-17 30'th Anniversary Bash

Ted Stout's Shop

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).