



Balcones Forge Dispatch

President's Corner

October 2015



Greetings!

I am really hoping that by the time this reaches you it will be long sleeve or at least sweater weather. We could all use some cooler weather.

Many thanks to John Meyers for hosting the September meeting in Bulverde and to the folks that brought their equipment out to forge for the visitors. Although it was hot, there was a good turnout for the jubilee with several potential smiths in attendance.

We are finding that many of us don't have portable forges or anvils light enough to travel with. There are several rivet or horseshoeing forges showing up at garage and estate sales, especially at the farm and ranch sales. A few have shown up at many of the Balcones auctions and I know a few more will show up in the coming months. If you are interested in making one, there are some fine examples in John Crockett's workshop area at the ranch. These forges will fully disassemble and can be carried in the trunk of a car. Blowers can be found in the same places or made from small industrial blowers. Even if they are not perfect, some of the very well used blowers will still provide several years of service. Travel anvils need not be that pristine Hay Budden that you want in your shop, but something a bit smaller and cheaper that you might let an onlooker pound on to try and make a nail. We should also carry that "other" hammer to let folks use instead of that high dollar Bastas hammer. Bottom line, we are looking for a few more smiths to show up at some of the public demo meetings with forging equipment to show off their skills. You can even team up with a friend or two and each bring a component of a forging station.

President's message continued on page 2.

Meeting Date is October 24



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President's message continued.

On the other hand, if you need help in obtaining equipment to travel with, let one of the elders know what it is you are looking for and we will do our best to help locate or fabricate whatever it is.

You should also put together a portfolio of your forged or found items for show-n-tell. People love to see blacksmith made items and some will even pay you well if they can take them home.

Hope to see ya'll in Austin!

Jerry Achterberg
President Balcones Forge

BALCONES FORGE FUTURE

October 24th- special meeting and auction
at the shop of Donald Morgan

November - Denis Moore, Blanco, TX

December 19th - Whitley's, Devine, TX

THE BALCONES FORGE BOARD OF DIRECTORS

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BLUEBONNET IN-KIND AUCTION

Remember the myriad of items we had back in March at the Bluebonnet Demo? There were hundreds -- literally! Hope you won what you had your eye on, and thanks again for your fantastic participation!

Did you offer an in-kind item, such as a training class? Did you win such an item? If you have not fulfilled your offer, or if you have not been contacted, please let me know. Unfortunately, my fault! I did not follow through on letting everyone involved know.

Thanks again.

Rudy Billings (outgoing Treasurer)
rudy@balconesforge.org

KEEP IN TOUCH

Do you have a new email address?

Have you moved lately?

Has your phone number changed?

If so, please let one of your Treasurers know.

o2bDaniel@balconesforge.org

or

rudy@balconesforge.org.

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SECRETARY'S REPORT

The Balcones Forge meeting took place September 19 in Bulverde, Texas at their Fall Bulverde Jamboree event. John Meyer and his wife Lisa, owner of Road House Art

hosted the event and provided the same great location as last year. Lisa opens her shop for the event and her gracious style of displaying as well as explaining the jewelry exhibits and mixed media art forms presented by the various artists was very interesting. A particular metal art that caught the eyes of several blacksmiths was the bronze, silver, and gold clay casting demonstrated by Gail Stouffer, an artist, designer, educator at Road House Art. John also mentioned the Bulverde Area Art business that handcrafts leather bags, purses, and other items that might be of interest to Balcones members. The area was saturated with vendors of all types and several blacksmiths had a very delicious lunch at Mikes that offers a lavish and delicious menu within the Bulverde community. Of course, there was a parade that everyone found fascinating. A great event for all ages and certainly a splendid way to kick off the fall season.

Balcones Forge President, Jerry Achterberg reminded members of the Morgan Estate demo and auction to be held in Austin October 24. William Bastas, educator with Austin Community College will be the demonstrator at this event. According to William, there are numerous tools, equipment, and a few unique forged items being offered.

Voluntary donation envelopes were passed out to BF members in support of Dorothy Stiegler in California who has opened her residence to the unfortunate people (as well as animals) plagued by the devastating wildfires there. Jim Elliot and John Crouchet have been in touch with Dorothy

and upon hearing of the support she unselfishly offers friends as well as strangers, it feels only right to assist her efforts eventhough she has not requested any.

Jerry's show and tell item was a bountiful display of scroll benders. Most are designed and forged from annealed leaf springs of various lengths and sizes. Andy Quitner also commented about the same design process from grader blades. As Jerry also pointed out, the technique of bending a scroll from the bottom (tool opening pointed up) will keep the bend true and straight - another lesson from Dorothy Stiegler. As nearly always, Jerry (ever humble) displayed his very first scroll bending tool forged from an open ended 3/4 inch mechanics wrench and the next bending scroll he showed the group was forged from a 7/8 inch spud wrench of which showed Jerry's remarkable skills as a blacksmith. Each and every meeting I attend always allows me to find out about something new and useful in the blacksmith craft.

Rick Dawdy generously offered numerous sets of calipers to attendees at today's meeting. I was fortunate enough to buy a set with proceeds going to Balcones Forge. The calipers were a little rusty so I soaked them in vinegar overnight and although this technique was successful in removing rust, I did break one of the springs by using this process, so please be advised.

We had plenty of interested visitors viewing and buying from our display tables throughout the day. Not only were a few of us successful in selling a few items to pay expenses, but the privilege and pride of presenting something handmade as well as unique and functional always wows the crowd. Even if you don't have a portable forge or anvil, make an effort to attend. There always seems to be some other blacksmith willing to let you use his stuff - just don't ask to use his hammer.

Tim Tellander
Balcones Forge Secretary

IS THAT LEGAL?

by Andy Quittner

Every now and then the question arises: As a non-profit corporation can we fund “X”? Or more broadly, what can Balcones Forge do. First, a few misconceptions. A not-for-profit corporation can make a profit – as much as it wants. What non-profit can’t do is pay dividends – that is share that profit with the members. Non-profits do not have shareholders. A non-profit is also restricted in supporting legislation or other political activity. Otherwise, a non-profit, including Balcones Forge is pretty much free to spend money as it sees fit.

There are a couple of other considerations. A non-profit can pay for services, including employees. If the services or employees are “members” then the payment should be made in accordance with a written contract that describes the services (so it doesn’t appear that the member is sharing in corporate profits).

Non-profit corporations frequently place restrictions on funds they receive – not because they are required to, but because they want to raise funds for a particular purpose. For example, during the auction held at the Bluebonnet Demo – some of the items were listed with the proceeds going to a particular scholarship. Those funds are then “restricted” and should be separately accounted for and only spent on the scholarship. It is a matter of keeping a promise or, in other words, meeting the expectations of the donor.

Some organizations will set up a trust or a foundation in order to provide a revenue stream for a particular purpose. ABANA set up a trust to provide a “stable source of income to provide scholarships and grants to individuals and groups involved in the nurturing and education of the art of blacksmithing.” This trust was established while I was serving on the ABANA Board. In theory the idea behind the trust is exemplary – in practice I believe that it has been difficult to establish consistent programs. From the beginning, my personal (and I emphasize personal) desire was that the trust should help fund the conference by sponsoring demonstrators so that the overall attendee educational experience would be enhanced.

From both a learning and camaraderie experience there is nothing like an ABANA conference (and if you haven’t been to one – get to Salt Lake City this summer). ABANA asked that Balcones (and I would assume other affiliates) help sponsor a demonstrator at the conference. Although one time sponsorships are important, I personally believe that a donation – for that purpose – to the current trust (or setting up one that will meet conference needs) would be the better way. As some of the original founders, and others of us that have been longtime ABANA members reach that age where legacy is a consideration, I personally would like to see an ABANA trust that would fund conferences to keep the costs in line so that more aspiring smiths can afford to attend. I have even given serious thought to returning to the ABANA board (if elected) for that purpose.

EDITOR'S SOAPBOX

by Vince Herod

It is that time of year once again. No not ragweed time (although for me it certainly is).....October is the month Balcones Forge holds election for Board members. One member of the Board has resigned and two others want to stand down as well so there are opportunities for anyone who wants to help with the heavy lifting. The current group of old hands has worked together for many years and I like to think we have done a pretty good job of things but it is time for others to step up.

Do you like how the group is run? Are the demonstrators providing the education you seek? Are there programs you want to see developed? Lots of questions and plenty of ways to help. Being on the Board has been very rewarding for me and since the "dreaded real job" keeps me away from meeting more than I would like, being on the Board keeps me in touch with the group.

Don't be scared.....it can be alot of fun!

Donald Morgan Blacksmith Shop

October 24 - 9:00

This is a special meeting at the shop of a fellow blacksmith we, unfortunately, never met. Will Bastas will be demonstrating forging a passion flower, leaf and tendril.

After, we will have an auction of the items in the shop. There will be many great tools to add to your own shop, so bring your cash, check or CC.

Once the first auction is done, we will have a benefit auction for folks in California who have lost so much because of the wildfires. Our friend, Dorothy Stiegler, has opened her home to so many neighbors and friends and their animals and pets. Please bring items to donate and also bid generously.

6107 Cary Drive, Austin, TX 78757

No Trade Item in October

Donald W. Morgan

Donald W. Morgan was born in Dallas, Texas, but grew up in the family's hometown of Paris, Texas, where they had returned because of the Great Depression. He graduated from Paris High School and Paris Junior College and entered the University of Texas, but his education was interrupted, as is was for so many of his generation, by World War II.

He served in the U. S. Army 441st Counter Intelligence, General Headquarters, Far East Command. He helped occupy Japan, living in the south of Japan for just over a year. He returned to the University of Texas and earned a degree in Government, graduating in 1948, and continued in Graduate Studies until 1950, planning to go into diplomatic service.

This plan was interrupted when he spotted the cute, curly-headed kid sister of his favorite hunting buddy in church in Austin, who had grown up while he was in the Army and was now also a student at U.T. Their two families knew each other in Paris, and he was friends with her older sister and brother; besides, she played the violin which he loved. The two were married in 1951. During the next ten years, four daughters arrived to enrich their lives.

Don worked for the Texas Highway Department for 35 years, retiring in 1986. He was raised in and served as a Ruling Elder in the Presbyterian Church. He and his wife joined St. David's Episcopal Church in 1976, where both sang in the choir for 15 years and he served as an usher.

He was active in the Sons of the American Revolution, Patrick Henry Chapter, Austin, serving as Registrar/Genealogist, Vice-President, and Officer of the Color Guard. He was also a member of the Fleur-de-Lis Chapter, Huguenot Society of Texas since 1994. He was interested in family histories and historical events all his life.

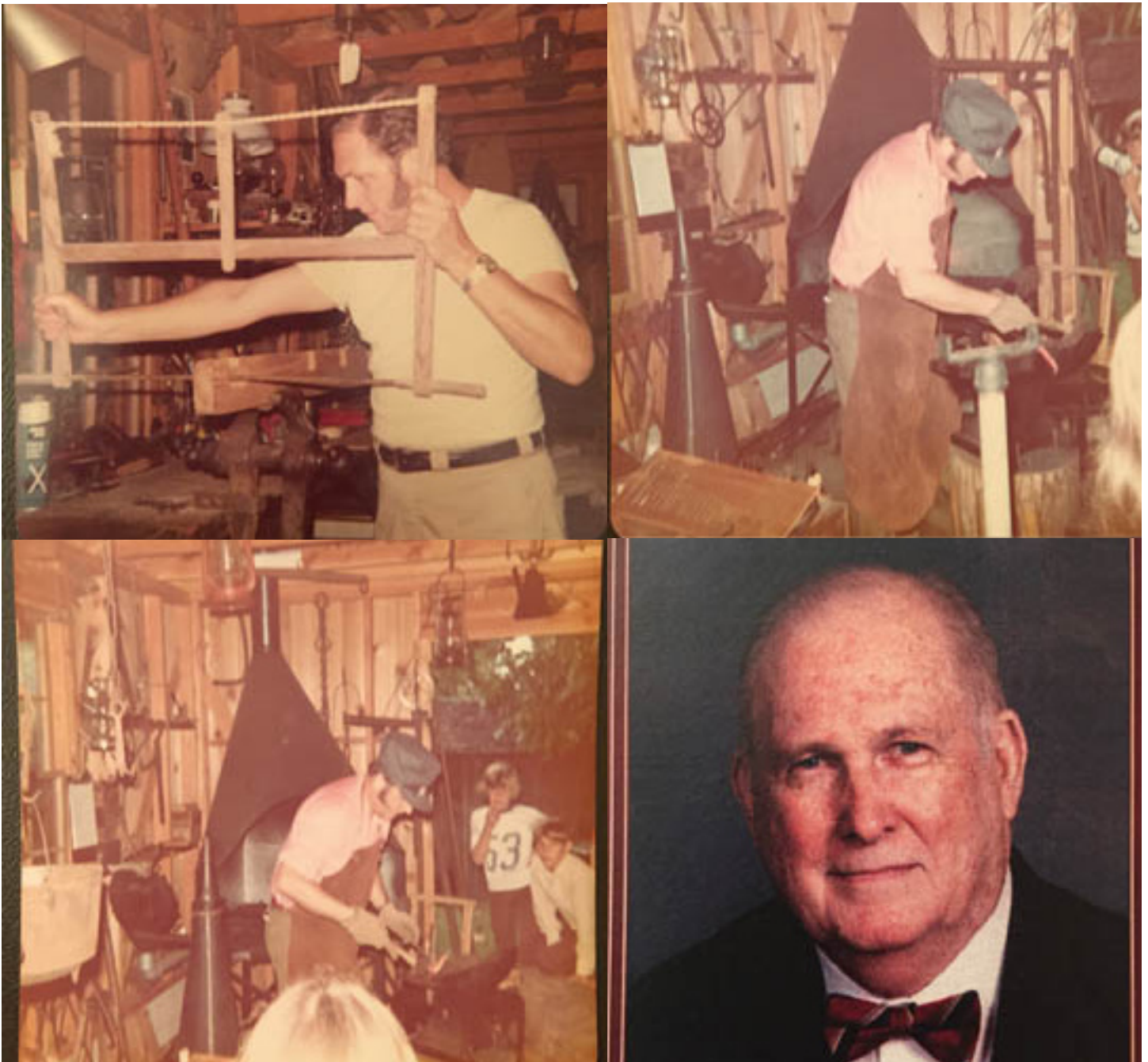
He and his wife, Natalie, developed an intense interest in early music on early instruments and were the founders of the Austin Chapter of the American Recorder Society in 1959, which he served as President for several terms. In addition to learning the recorder, he also taught himself to play the viola da gamba and studied lute with a professional teacher in England, who supplied him with detailed written lute lessons by mail.

He began his habit of collecting as a very young boy, beginning with muzzle loading guns. As years went by, he collected coins, books, antique furniture, musical instruments, and blacksmith tools. He was noted for being a "tale spinner." His knowledge concerning these collections was encyclopedic.

His interest in blacksmithing tools began in the late 1970's and he spent every weekend driving the rural roads around Austin, meeting and getting to know many

of the old blacksmiths who still had shops. Many of them were approaching retirement and he was able to purchase tools, both large and small. The most notable items in the collection are the forge and the anvil, both from Mr. Nunn's shop, which was originally in Littig, Texas, but later moved to Manor. Mr. Nunn is well known and revered in the African-American community and there is a bust of him in the Carver Museum in Austin. He was a third generation blacksmith and his grandfather may have been a freed slave. Don also revered him and several other smiths and tried to learn as much as he could from these "originals."

Don gradually became ill, both physically and mentally and by 2008, was almost completely bedridden. He passed away in December 2014 at age 90 and is buried at Austin Memorial Park



AN INTRODUCTION TO

Fold Forming



PART ONE

by Charles Lewton-Brain

Fold forming is an approach to metal forming I invented and developed which emphasizes forming using the metal's characteristics and following what the metal likes to do. Rather than forcing form upon the material forms are to some extent derived from the natural tendencies of the metal. It is about listening to the metal.

Because one does not fight the metal or force form upon it many radical changes in cross section and surface can be made in 3-5 minutes. Tools are simple: fingers, hands, hammers, mallets, anvils and rolling mills. Complex high relief forms are produced from single sheets of metal often with a single annealing. These shapes resemble chased, constructed and soldered forms and often can not be arrived at in any other way.

The techniques may be used with most metals. At the ABANA conference at Alfred Tom Joyce forged some fold forms in 3/16 inch plate for the first time under my direction. There appears to be great promise adapting these techniques to large scale work and work in hot steel for blacksmiths. As there is no soldering or brazing used to obtain high relief forms the surfaces are applicable for jewelry, hollowware, enamelling, anodizing etc.

Fold forming allows rapid understanding of metal flow to take place and teaches a kind of material comprehension that often takes years

to learn. Blacksmiths will already be completely familiar with concepts of plastic flow and so can readily adapt these techniques to their own ends.

Fold forms can be used as finished products by themselves. However they are perhaps at their best as a starting point or component of more complex pieces. An example of this might be slicing up a fold form, manipulating the elements and re-soldering or brazing; or using it as an element in a constructed structure.

There is a certain beauty lent to forms produced this way as the working processes are very close to the nature of the material. There is a reflection of natural laws in the results; modeling of nature is often apparent in fold forms.

Fold forms have developed a great deal since 1985 when the first public presentation on the system was given for a Society of North American Goldsmiths conference in Toronto. The main divisions of fold forming at this point in time are:

- Line folds
- T-folds
- Rolled folds
- Folds derived from paper models
- Scored folds
- Woven folds
- Folds worked with the hydraulic press.

There are several mental models that may prove useful to understanding fold forming. First is that the metal is clay. Metal moves precisely the same way clay does. One uses plasticine and a hammer to understand forging and hammer use because the process is the same, a manipulation of a colloidal or plastic material. Metal is supremely plastic. Think of raising a disc into a vase. At the beginning the disc may have a circumference of 40 inches or so and at the end the mouth of the vase has a circumference of about 4 inches. The metal has not been cut off; it has flowed.

With work hardness one can build in a structural "tool" into the very sheet itself. This "frozen" spot can be used to push or pull the sheet around from within itself.

In this issue we will cover line folds. Next issue will cover T-folds. These two categories of fold-forming are the basis of the system.

The instructions given are for base and precious metals and these are worked cold. For blacksmiths the rules are somewhat different. A blacksmith for instance would not anneal and quench to soften the metal but would instead simply take another heat.

If you make things using these techniques please term the technique used "fold-forming", give me credit as the developer and send me some pictures for the fold-forming book that is in the works. This information may be shared as long as credit is given to Charles Lewton-Brain and no money is made. No commercial use of any kind is allowed without permission in writing from Charles Lewton-Brain.

Lewton-Brain was one of the demonstrators at the 1996 ABANA Conference. For information on other books, videos or workshops on fold-forming contact: Brain Press, Box 1624, Ste. M, Calgary, Alberta, T2P 2L7, Canada Tel: 403-263-3955 Fax: 403-283-9053 E-mail: brainnet@cadvision.com

Line folds

These folds produce raised lines in flat sheet that resemble chased or even constructed lines. Line folds may also be used as starting points for folding sheet metal to be deformed, rolled or forged to produce three-dimensional forms when unfolded. They may be run one across the other. I have even placed line folds across a chased surface. They may run straight across an entire surface or by not folding the ends of the fold tightly be limited only to the center of the sheet and repeated to produce patterns of short raised lines.

A basic line fold is made by folding a piece of metal, flattening the "fold edge", annealing it and unfolding it. The line standing up from the surface is then rolled slightly to tighten it. Note this does not mean eliminating it; rather slightly compressing the top of the line only. Line folds make excellent pattern elements or cloissons for enamelling and serve to make changes in plane and direction in the sheet.

While it is not easily possible to produce curving line folds in a sheet by folding and unfolding it is possible to produce curving line folds by scoring and bending, soldering in the bent up condition and unfolding. As with many fold forms line folds can be combined with other fold forming techniques.

It is useful to have some nomenclature for working with and to this end a diagram of the main features of a basic line fold follows:

7) A thin doubled line may be produced by very lightly planishing or upsetting the fold edge in a vise before annealing and unfolding. A similar effect is achieved by not planishing or malleting hard on the original fold. This results in a fold edge that is relatively wide (1.5mm or so) and when compressed a little by the rollers it too forms a small double line.

Basic Line Fold

1) Fold metal sheet so the fold is placed where the line should be, mallet flat or if a sharper edge is desired planish the fold gently.

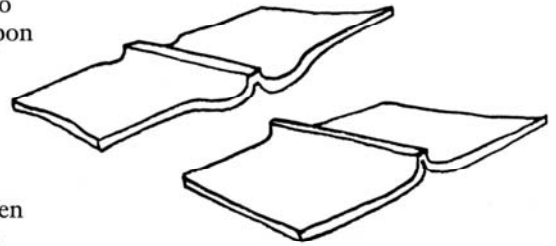


2) Anneal and quench. After quenching one can dry it fast by placing a corner on a charcoal block and chasing the water from top to bottom with the torch flame. The water runs quickly into the charcoal block. To save time the metal may be further worked and rolled without pickling.

3) Unfold with the fingers and by pressing the unfolded metal against a wooden surface that is flat.

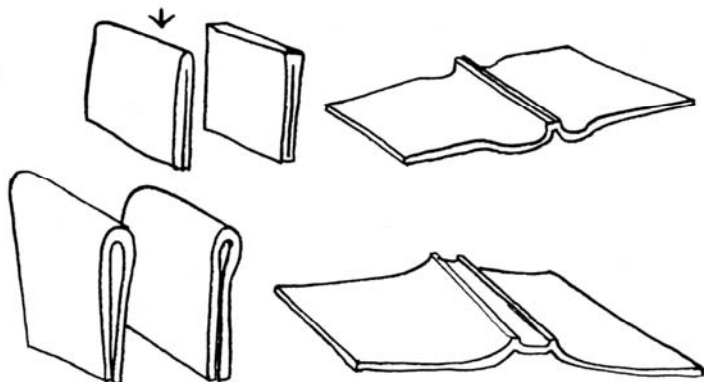


4) Roll through the rolling mill so that the raised fold is compressed upon itself into the metal to the extent desired. This can be carefully controlled to determine the sharpness and flat width of the top of the line. One may place the unfolded sheet in the rolls and tighten them down a bit at a time to get the effect wanted.



5) An alternative to the rolling mill is a planishing or riveting hammer. The height of the line may thus be varied. The rolling mill may also be opened or closed while rolling, or step rolling may be used to produce a variation in line height. The width of the line may change by planishing part of the original fold, not planishing another and then unfolding.

6) After the first line is laid down upon the metal further lines may be added to the same sheet, parallel to, oblique or even superimposed upon earlier lines. This may be repeated until the metal's structural resistance prevents further folding. Lines may also be combined with many of the other folding procedures. Anneal at every stage.

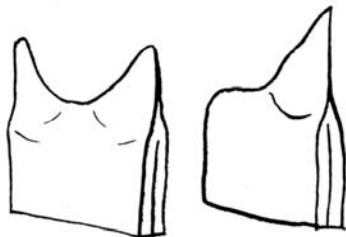
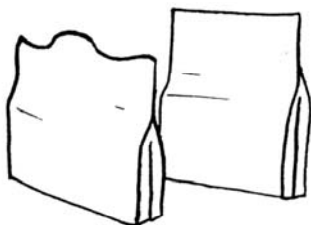


Forged Line Fold

1) Fold metal along desired line position and mallet closed.



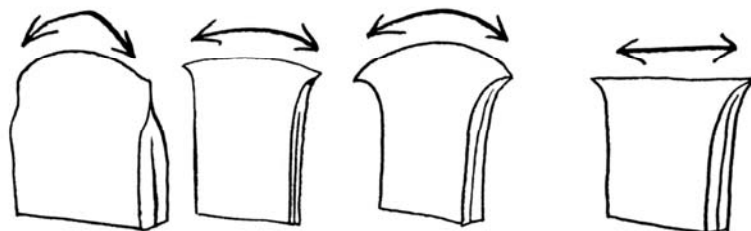
3) The metal extrusion may be forged out extremely thin or left thicker. It may be forged to produce a flat or wavy profile or with a carefully positioned extrusion at one side or another or in the middle. It may also be made by step-rolling.



2) With a crowned face (planishing hammer) planish or forge the fold area. If forged outwards at right angles to the fold line the doubled sheet behaves as a single in terms of forging. This enables one to extract a single sheet area from the fold edge material. The folded metal may be held at a slight angle at the edge of an anvil to prevent damage to hammer and anvil while working.



4) If forged in the direction of the fold, that is to lengthen the fold line across the sheet either a curved or straight profile may be obtained. The greater the curve forged in the higher the relief in the unfolded metal.



5) The metal is annealed and unfolded gently

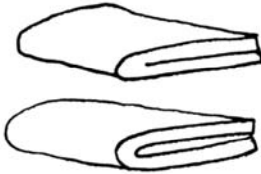


6) If only one area or side has been forged out to form a sheet extrusion then the effect can become very subtle and produces sheet material that is not possible to make in other ways.



Pinched Line Fold

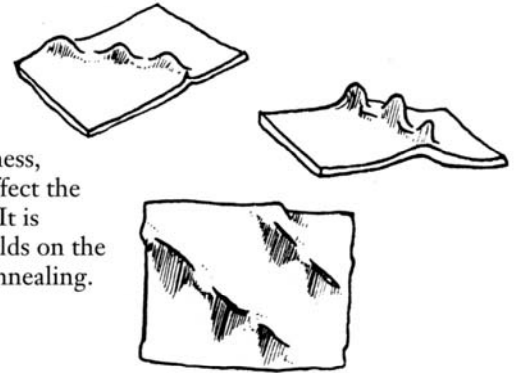
1) The sheet is folded with the fold where the pinched line should be. The degree to which the fold is brought together affects the width of the raised metal areas between extrusions on the finished line. If malleted down they are narrower and sharply defined. If the fold is left with a distance of 1-2mm between the bent sheet these areas are broader and softer in appearance.



2) With a raising hammer or other heavily crowned hammer the fold is selectively forged to produce regularly or irregularly spaced extrusions of sheet from the fold.

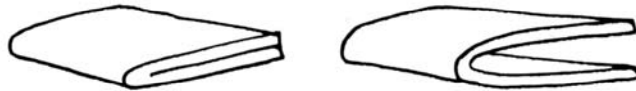


3) The sheet is annealed and unfolded. The distance between extrusions, the degree to which the fold was malleted closed, metal thickness, metal type, extrusion height etc. all affect the outcome and appearance of this fold. It is possible to put several pinched line folds on the same sheet, each addition requiring annealing.



Pinched Upset Line Fold

1) Fold metal sheet along desired line. In this fold the areas between the forged extrusions

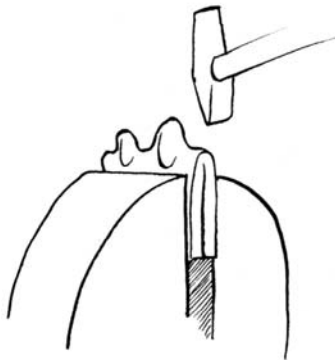


along the fold line are of importance. They are upset to form tables and are a precursor of the T-fold series. If narrow tables are needed then the fold is malleted closed. If broader tables are planned then the fold is not malleted closed but left with a distance of at least 1 to 2 mm between the bent sheet. If merely bent closed with the fingers and hand pressure then wider tables are possible.

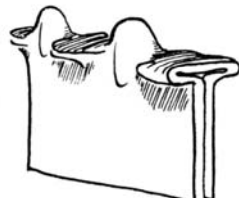
2) With a raising hammer or appropriate crowned hammer forge out the selected extrusion points.



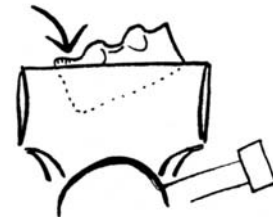
3) Set the fold upright in soft vise jaws (Delrin inserts or copper sheathed). The amount that the fold sticks up above the vise jaws determines the degree of spread in the tables formed by upsetting and hammering down the areas between the extrusion. The lower it is set in the vise the smaller the table areas and also the easier the control over the upsetting procedure. A riveting hammer peen produces a linear texture at the same time as



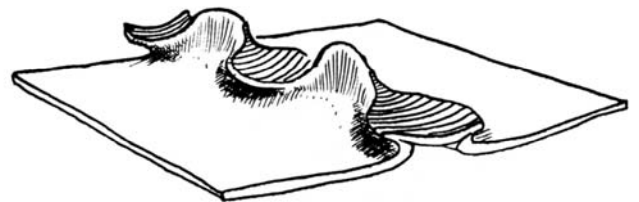
upsetting the area between extrusions. Such a texture provides contrast between parts of the finished fold.



4) The fold may be held at different angles in the vise while upsetting to produce angled table areas between extrusions.



5) The fold is annealed and unfolded.



SHOP TIPS

Nathan Robertson's Hammer drift gauge by Bob Ehrenberger

At conference while hanging around the MTS area, I noticed an interesting device on Nathan's table. When I asked him about it he said it was used to check his drifts while dressing them to make sure they are the right angle and size. Such a simple idea, yet so useful. The drifts need a 7deg. taper in one direction and a 5deg. taper in the other. The opening at the larger end of the gauge needs to be the same as your finished hole, on this gauge it looks like they are 1.25" and .75". When I got home I checked my hammer eye drift and found it wasn't even close, like 2 and 3deg. I will have to fix or replace it before my next hammer making session. After I make myself a gauge.

