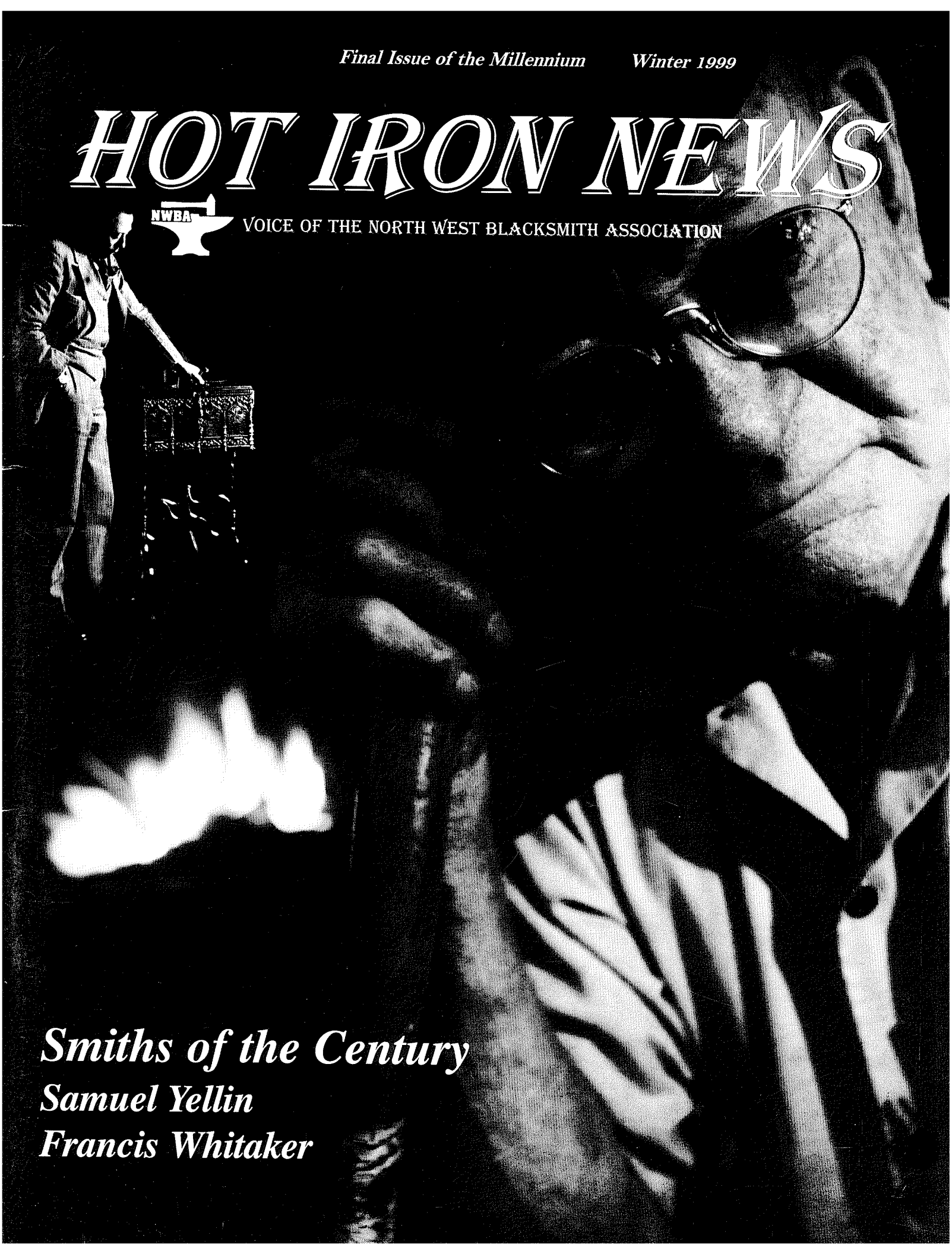
*Final Issue of the Millennium* *Winter 1999*

# HOT IRON NEWS

NWBA

VOICE OF THE NORTH WEST BLACKSMITH ASSOCIATION



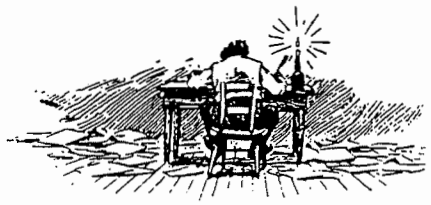
## *Smiths of the Century*

### *Samuel Yellin*

### *Francis Whitaker*

# Inside

***HOT IRON NEWS*** is the official quarterly of the North West Blacksmith Association. Submission of materials is eagerly encouraged. Deadlines for submissions are February 1, May 1, August 1 and November 1. 



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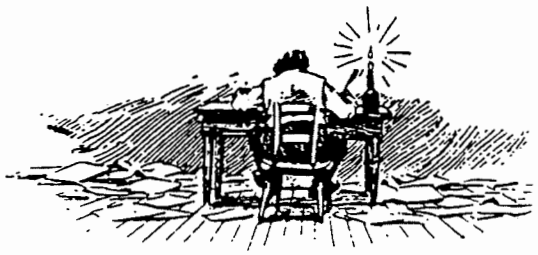

# Editor's Notes

At the end of the Twentieth Century, and the Second Millenium, it is required that we leave a cultural hammer-print in the anvil of history. I realized this in the past year when I began reviewing the blacksmith publications from the 19th Century. They provide a window into who those people were, how they thought, what their technology was, and where they thought they were headed. My conclusion: They didn't have a clue! The *Blacksmith and Wheelwright* of January, 1900, was excited about the possibilities of a battery which would run on "electric pellets." We now look back on them and wonder how they could have been so primitive. Well, our turn is coming. We are in the beginning throes of changing from an analog to a digital world. Technology today is obsolete at the moment that it's taken from the shelf. Forget trying to contemplate what technology will be like one hundred years from now, it's impossible to know what six months will yield!

I asked the writers in this special Millennium Issue to comment on the past century and the upcoming Millennium--and assume that their works would be read 100 years from now. Well, they have succeeded beyond my expectations. This is one issue that I am exceedingly proud to put into the time capsule. The collective writing is amazingly focused on the same theme: the uplifting nature of an artistic soul. These are *timeless* thoughts. They are the distillation of the finest concepts of Western civilization which have been forged and refined over the past 1000 years. They represent a concept that has become so basic to us, here, in 1999, on the precipice of the Third Millennium, that it bears stating: *individual human expression is essential!* This is a concept that we take for granted--until we have to fight a world war to preserve it. And, after all, it hasn't even been ten years since Communism systematically made artistic expression subservient to the state. So, to all of you readers 100 years from now, has society maintained these freedoms of artistic expression? Who of us, today, can speculate on the answer to this question? Will the artistic freedoms that we enjoy today seem anachronistic into the next Millennium? They have been hard fought to obtain and preserve. Will the struggle continue to be successful? Will over-population, over-technologizing and over-socialization blunt the sharpness of artistic curiousity and expression? This is the spiritual time capsule that we launch to succeeding centuries.

This issue contains Samuel Yellin, Francis Whitaker, Jim Wallace, Dorothy Stiegler, Richard Postman, Peter Ross, as well as our own Kemper, Culberson, Chapman, Bay, Wade, Raffloer and Race. If there is a finer compendium of blacksmith writing around, I haven't seen it! What a great collection to bequeath to succeeding generations of blacksmiths! These writers have memorialized contemporary end-of-the-Twentieth Century thinking. And, does writing get any more touching and beautiful than Dorothy Stiegler's tribute to Francis Whitaker!

This issue is dedicated to Francis Whitaker. Regarding the Twentieth Century, he summed it up when he said, "Guess I have covered it as few others." Francis' influence is woven through these articles. He was the product of an American Twentieth Century Iron Culture that Samuel Yellin had launched. Francis made it his mission in life to ensure that it endured.

My thanks to all of the contributors. Clare Yellin shared *original* photographs of the Yellin work. Also, thanks to Sara Harkins for the great photos of Francis. Hopefully, we'll continue to hear a lot more from fascinating Dick Postman!

My two years as Editor has been a lot of fun. Being so close to the craft has taught me a lot--even if I don't have much time to practice what I learn. I look forward to producing the Hot Iron News in the new Century.

***The Closing of the Century:*** *Time in advance, behind him hides his wings, And seems to creep decrepit with his age; Behold him when pass'd by; what then is seen But his broad pinions swifter than the wind.*
From *The American Blacksmith and Wheelwright, January, 1900*

## RAMBLINS FROM THE PREZ--

Malcolm Gladwell wrote an article for the *New Yorker* entitled *The Physical Genius.* In it he indicates that only select individuals are capable of becoming a *Physical Genius.* I disagree! I think that most of our N.W.B.A. members are fully capable-- Which brings on these thoughts for the 21st Century! I want to talk to you about a PYRAMID!


At the bottom of the pyramid are the raw components of being a blacksmith-- the *Physical Strength* and *Coordination*–but do not think of this as a test to measure ones ability at athleticism or brute strength-- not how big a hammer can you swing all day (or even pick up!), but, have you found a hammer that does what you want? And have you practiced with it so that you CONTROL it and the FORCE it exerts on the metal? THAT'S THE FOUNDATION OF OUR PYRAMID! Have you ever made a mistake? If the answer is "Gee, I really haven't made one," do not pass Go, collect $200, or read any farther. If the answer is "I make mistakes all the time," then you are headed towards becoming the best! (you have the ability to rethink what you have done and imagine how you can do it differently--better.) This attitude allows you to practice a project until all its imperfections are ironed (pun intended) out. PRACTICE–the single-minded pursuit of some fractional improvement in our forging! The work that came out of the Samuel Yellin shop is always admired. But those that worked in the shop in later years always tell of the "test pieces" found stashed behind the benches and radiators. "Test piece" or "practice piece," the skills gained are the same. What we are talking here is TECHNICAL SKILLS. Take that workshop class so you have some new skills to practice! Read an article or book that challenges you--IT IS ONLY AFTER WE HAVE OUR TECHNICAL SKILLS DOWN PAT, THAT THE REAL JOY AT THE TOP OF THE PYRAMID BECOMES OURS! One way to shorten the goal of achieving technical proficiency is to specialize on one facet of smithing. The path of technical expertise is shortened, as is the path to economic rewards! TECHNICAL SKILL AND PRACTICE ARE THE BODY OF OUR PYRAMID. But focus and determination are not our entire pyramid. You must have IMAGINATION! Thousands of professional cellists play around the world, but few compare to Yo Yo Ma-- but it is not just practice that makes him great. Yo Yo Ma says that "only once did I try for a TECHNICALLY PERFECT performance." After spending a year practicing, he started to perform, and thought," I am BORED. That's when I decided to always opt for EXPRESSION over PERFECTION!" UNDERSTAND! Try to achieve near perfection in your technical skills--but let your imagination express itself in your finished product. It sets your work apart from anyone else! It has been said that the only way to truly achieve your own creative style is to develop your skills on a deserted island. But I look at many of N.W.B.A.'s finest and know this isn't true. Try forging a small "test piece" each day just for your own enjoyment! Let your imagination visualize the finished form or let your technically-trained hammer work with the form the metal speaks to it. Always remember PERSONAL EXPRESSION IS THE TOP OF OUR PYRAMID!

WISHING YOU THE BEST AT YOUR FORGE IN THE 21ST CENTURY!

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# Samuel Yellin ~ Onward Into the Old and New Iron Age ~

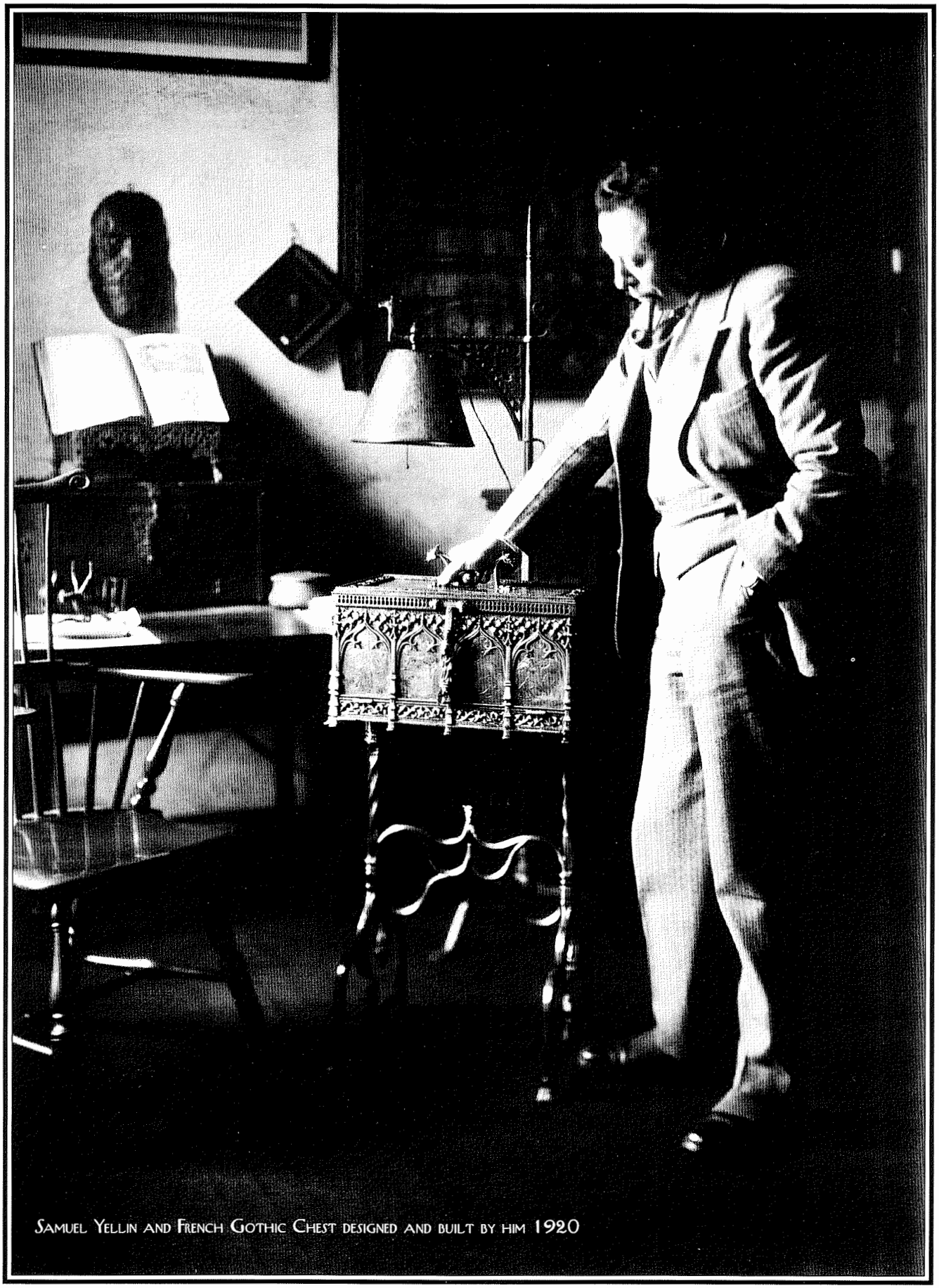
By Clare Yellin

A number of months ago I promised Jerry Kagele that I would write an article on my Grandfather, Samuel Yellin. I didn't know what direction the essay would take--should I write about the business today or delve into the past? The word "tradition" kept popping into my mind. I started to reread some articles that were written by my grandfather. He talked of so many ideas that are still bandied back and forth today. What is craftsmanship? What is good design? How to work with architects and clients. The articles reminded me of a dialog that Francis Whitaker started in the Letters to the Editor in *The Anvil's Ring* this year. He talked of tradition and making things the "old-fashioned" way. Do you think he heard those same or similar words from his Master while a 17-year-old apprentice at the Yellin shop?

In September, 1925, Samuel Yellin wrote an article, "The Architect and the Craftsman," in the periodical *The Western Architect*. He focuses a great deal on the relationship between the architect and the craftsman. Not everything in this article is accurate by today's standards, e.g., the information on the brass where he says that it cannot be forged is incorrect. Today, many non-ferrous alloys can be forged. As you read on please note that he was a man of immense humor and munificence as well as someone with very definite opinions. If this article stimulates discussion within yourself or with other craftsmen--great. It is that same type of dialogue that Francis Whitaker tried to spark in *The Anvil's Ring*. To Samuel Yellin craftsmanship was working out good designs with proper materials in an honest way. I wonder if Jean Tijou, when creating all of his beautiful ironwork, especially at Hampton Court Palace in England, said the same thing about craftsmanship. The more things change - the more they stay the same--on to 2000!

Samuel Yellin:

"Of the utmost importance it is that architects and art lovers, who are the teachers of art in general, should insist upon and demand proper designs for architectural objects in the various materials and should see that they



SAMUEL YELLIN AND FRENCH GOTHIC CHEST DESIGNED AND BUILT BY HIM 1920

are properly executed in these materials. This is the only way in which the arts will ever be worthy of their names.

Unfortunately, the methods of design which are employed by some architects at present, are not quite so helpful as they might be from the craftsman's standpoint. Both architect and craftsman will benefit by a complete understanding of the latter's requirements which I shall attempt to set forth in this article.

The architect should outline roughly to the craftsman what he wants, give the craftsman all necessary sizes and information as to the conditions, and furnish him a set of designs of the structure in question. Then the craftsman should make suggestive designs and study them with the architect. Sometimes clay models are made of a proposed piece of iron work. *This is useless.* Clay can never represent iron work and the cost of the model may be spent much more profitably in making a piece of the work in iron. After the suggestive designs are accepted, studies of all the work should be made in full size, and portions of the work, showing how the completed piece will appear, should be made in iron. There are times when a piece of ornament has to be forged at the anvil before it can be represented on paper. In fact, in my shop there is a forging class for the draftsmen, in order that they may learn more intimately the material which they are indirectly using and thus improve their designs.

So much can be done with the hammer that can not be shown on paper, that it is a waste of time for any architect to make a careful drawing of each member, figured as to size and treatment. It serves also to hamper the craftsman. I am often asked by architects how to specify iron work. My answer is always in a very few words: 'Specify that it is to be executed in the *best possible way.*' The true craftsman understands no other form of specification. I have even been asked how to specify the number of hammer marks that should be made per foot. This term 'hammer marks,' is a wrong and entirely superfluous term. There is only one way to make good, decorative metal work and that is *with the hammer at the anvil.*

Then, the relations between architects and craftsmen should be much closer than they are at present. I feel it is the architect who can make them so. He can always be sure of a welcome to the craftsmen's shop; the craftsman cannot take his shop to the architect. Visit the craftsman's shop and watch the different stages in development and methods used in the production of decorative metal work; work with him and learn from him. Gain a greater interest in the work he is doing, for as you watch that work passing through its various stages you will acquire a greater knowledge of the possibilities and limitations of this noble material.

Those who make full-size details of iron work with practically all the dimensions marked on them, are not working in the proper way. Work executed from such details becomes a purely mechanical product. When it is finished it might quite as well have been cast or turned on a lathe for it is as far removed from craftsmanship as a piece of burlap is from a *Gobelin Tapestry.* What is put on paper only indicates in general what is wanted; the real, artistic value of this work must be expressed *with the hammer.*

I do not know of any piece of my work, which, when completed, was just exactly like the drawing. When iron is hot, so much more can be done with it than can be shown on a drawing. While I admit the necessity for drawings to show the conditions and sizes of the position the work is to occupy, they are merely suggestions as to design.

Although iron is the least expensive of all metals, there is no other material which lends itself more beautifully to treatment. Neither is there a material which can be worked more quickly. Unfortunately, there are many who do not understand these facts. For instance, --some time ago I received this letter,

> 'We have been commissioned by an architect to make for him a pair of bronze doors, made of wrought bronze, and as you have done work for him in the past, we would like, if not asking too much, to have you send us a small sample of a piece of wrought iron representing the early Italian period, in order that we may faithfully reproduce this class of work in bronze, etc.'

You will note that the proposal was to make doors in *wrought* bronze and to reproduce early Italian iron work in bronze. *It can not be done!*

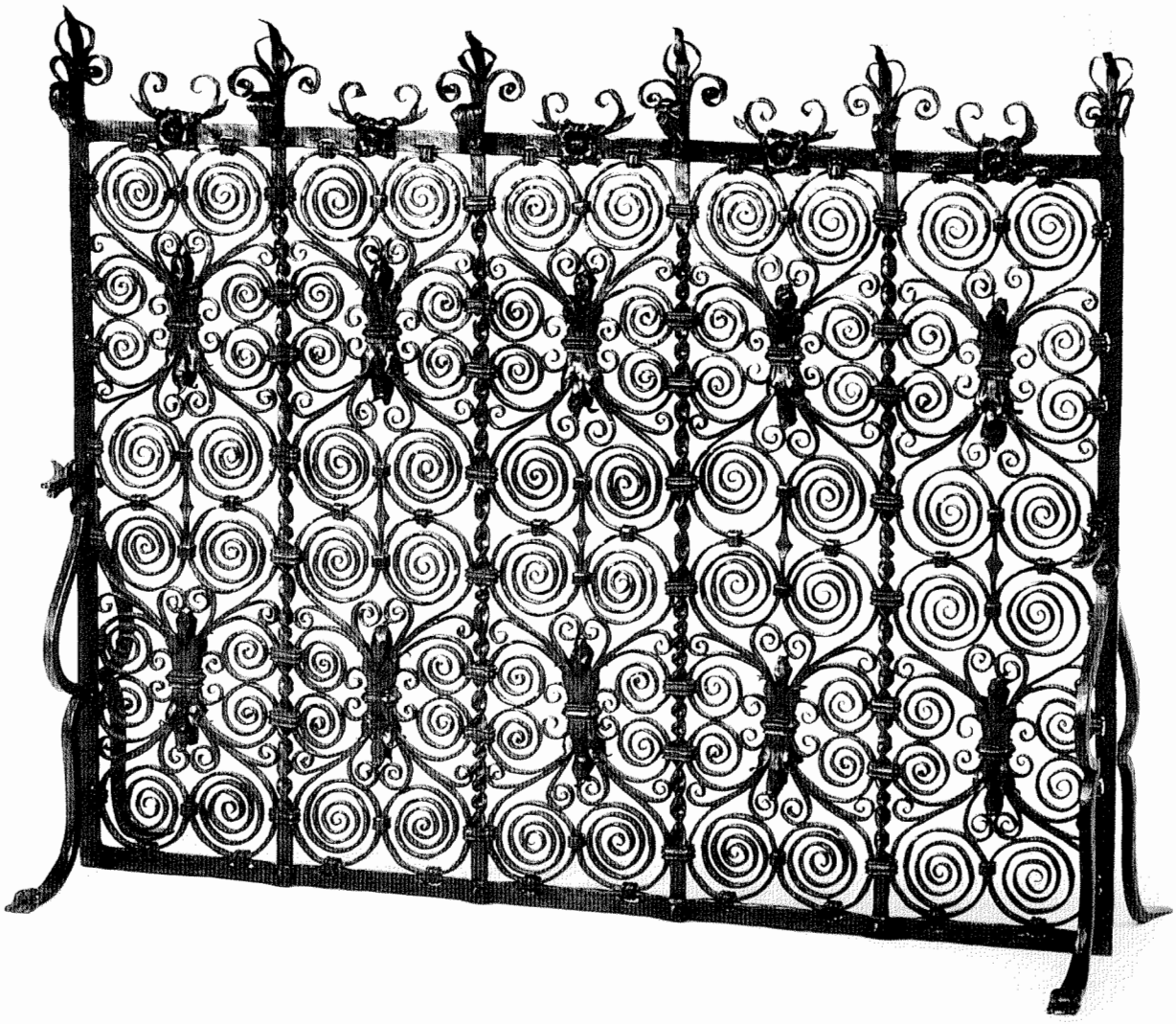
Sometimes color is used on metalwork for its effect. Sometimes the decorator wishes to carry his color scheme in lighting fixtures or other metal work. But, although occasionally a little bit of color or gilt may be used to give warmth to a piece of work, it rather suggests painting the lily. The most logical way to give more color to iron work is to incorporate another metal, for instance, brass, applied or inlaid. This with the colors of the iron itself will make any piece colorful to those with eyes to see.

It is discouraging to find the sources of information to which so many look for their knowledge of art, today, filled with material so misleading. But I am truly thankful that we have architects, who, if they will, can educate their public in a knowledge of what is right in the arts and crafts, and in an appreciation of the truly and logically beautiful. They must lead in the fight against such bad influences.

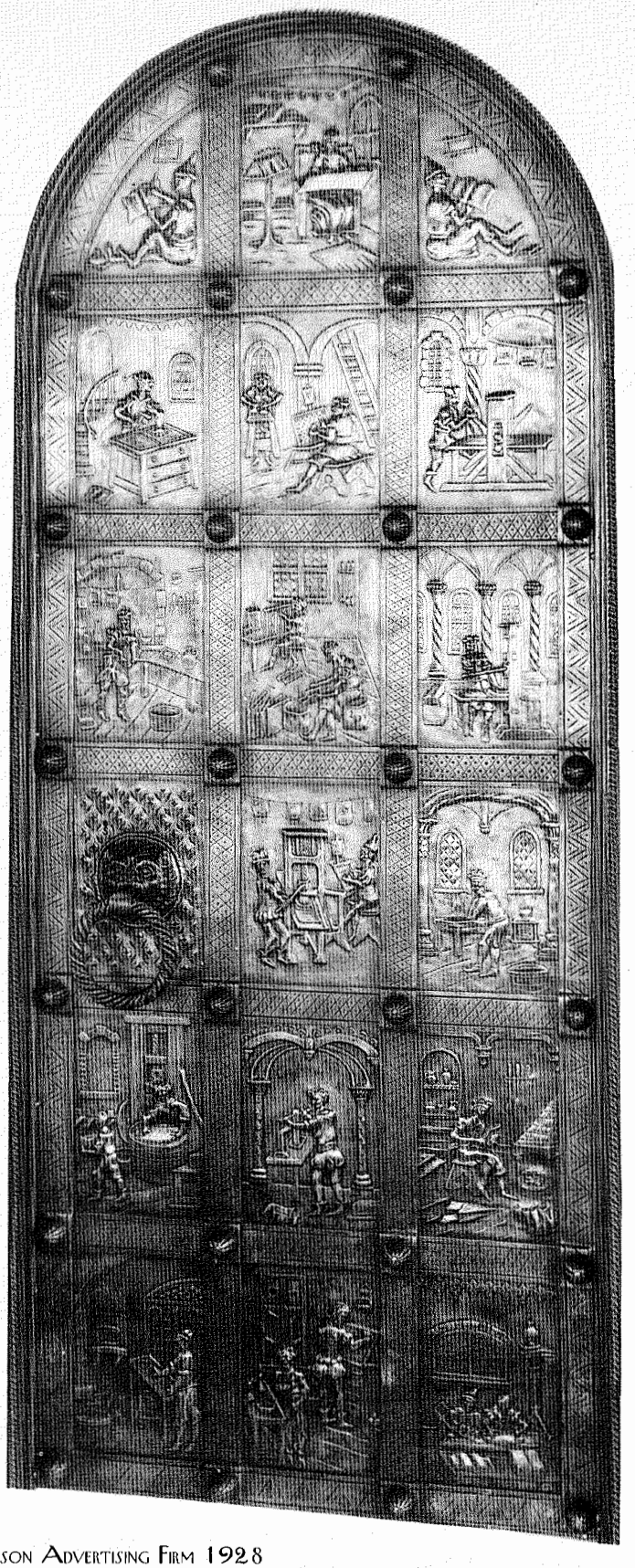
A public improperly informed, cannot be blamed for demanding that which is bad. The responsibility is the architect's, for he is the educator and upon him the real craftsman depends for support. It is a part of the architect's mission to insist upon the beautiful and to promote real craftsmanship.

But what is real craftsmanship? Is it the designing and production of work by methods tricky and inventive that will make the public marvel at the workman's cleverness because it cannot see how the result is achieved?

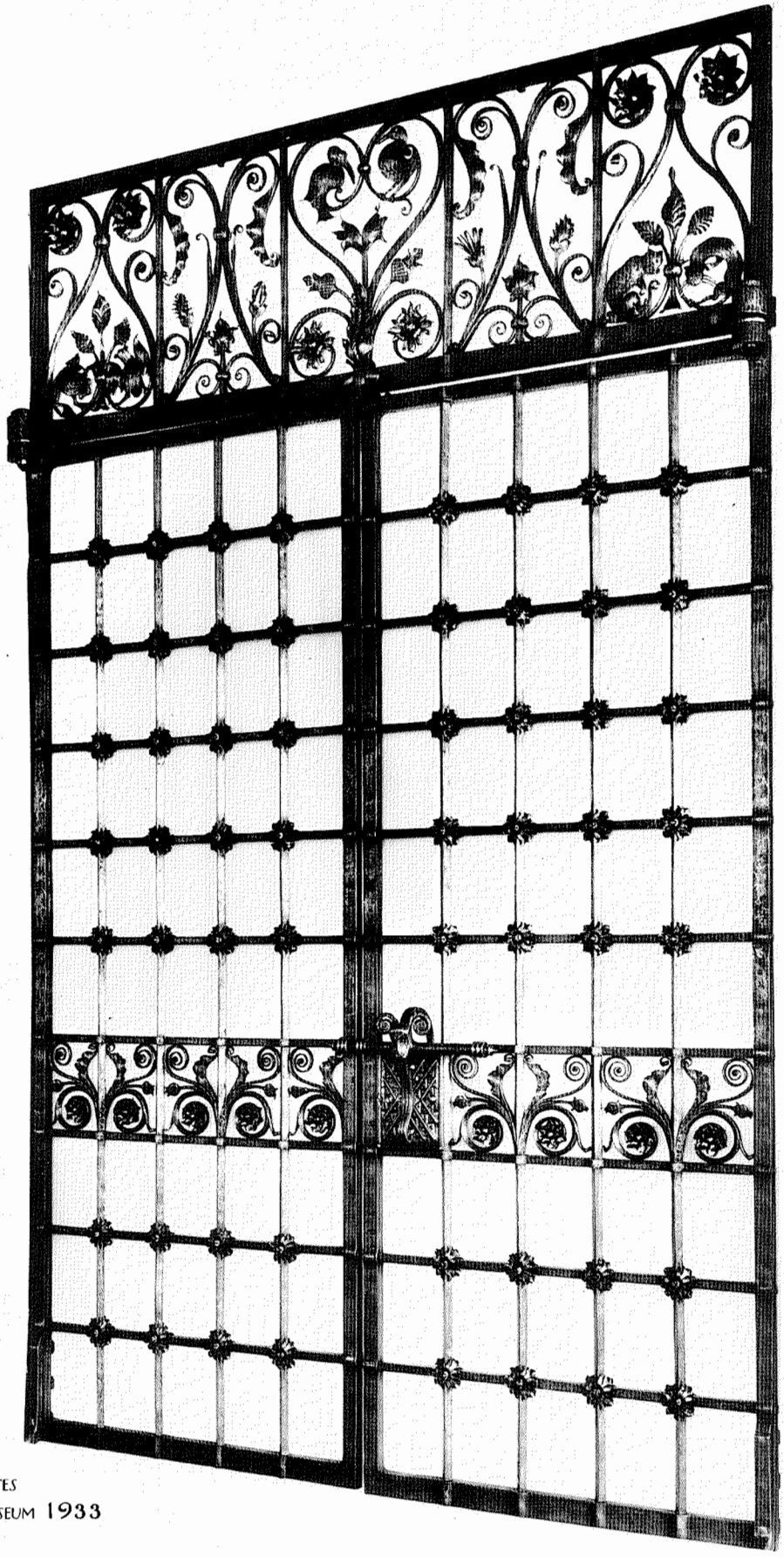
Or is it working out of good design in proper materials, in an honest way?"



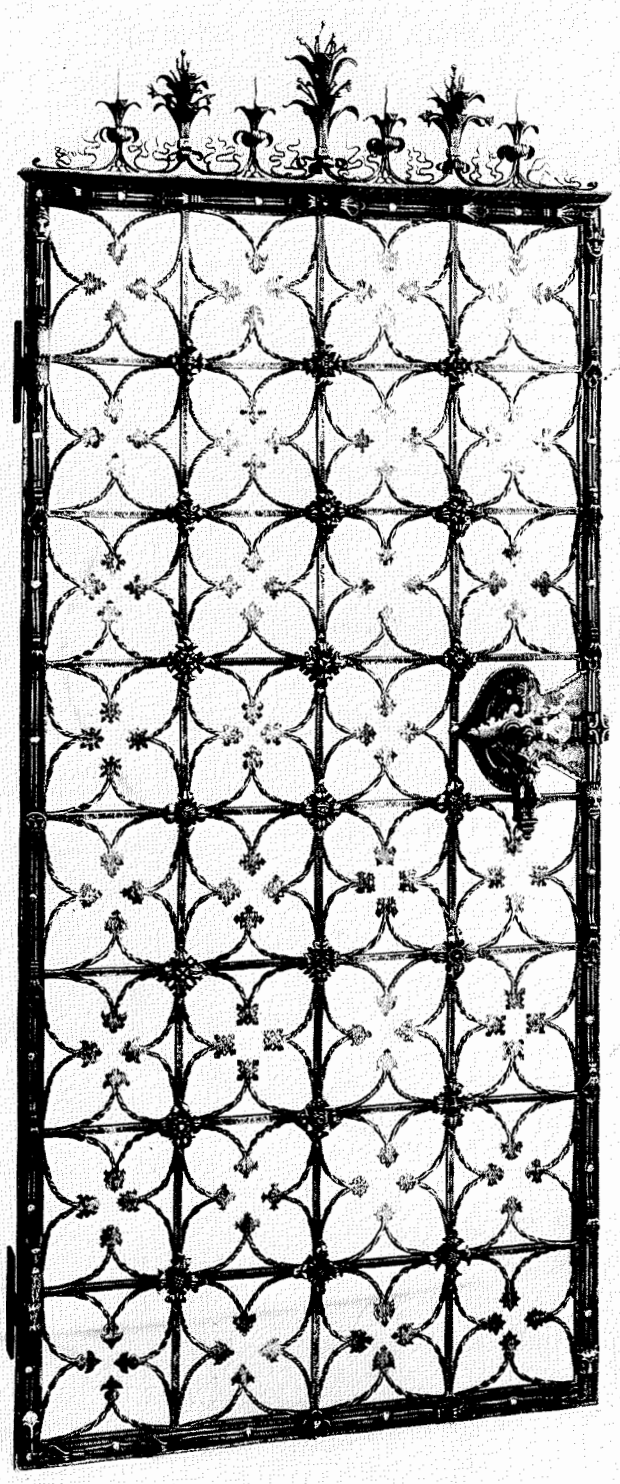
Iron Firescreen for Samuel Yellin Residence 1918



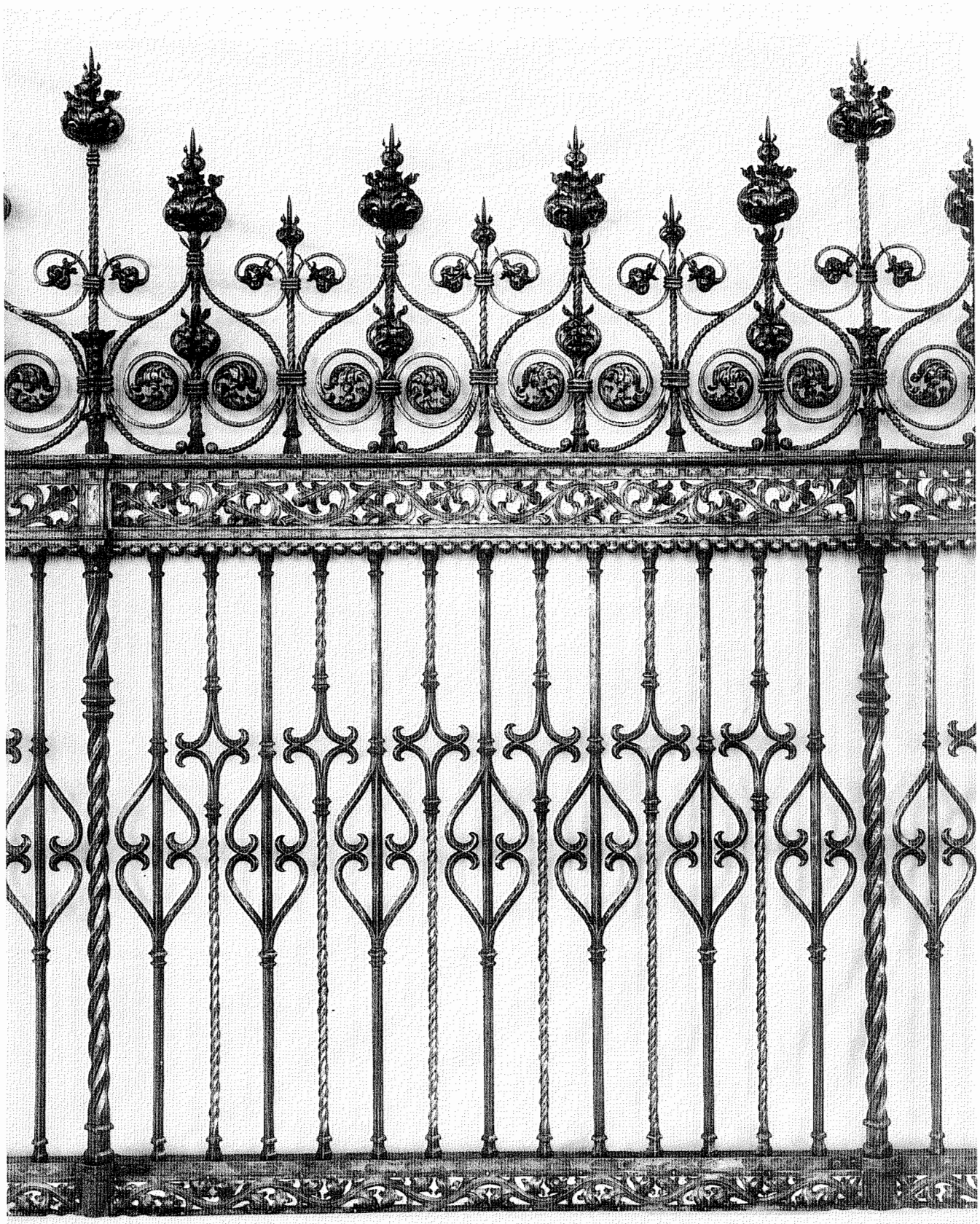
Iron Repousse Door for Thompson Advertising Firm 1928
Now in Metropolitan Museum of Art



EXTERIOR IRON GATES
SEATTLE ART MUSEUM 1933

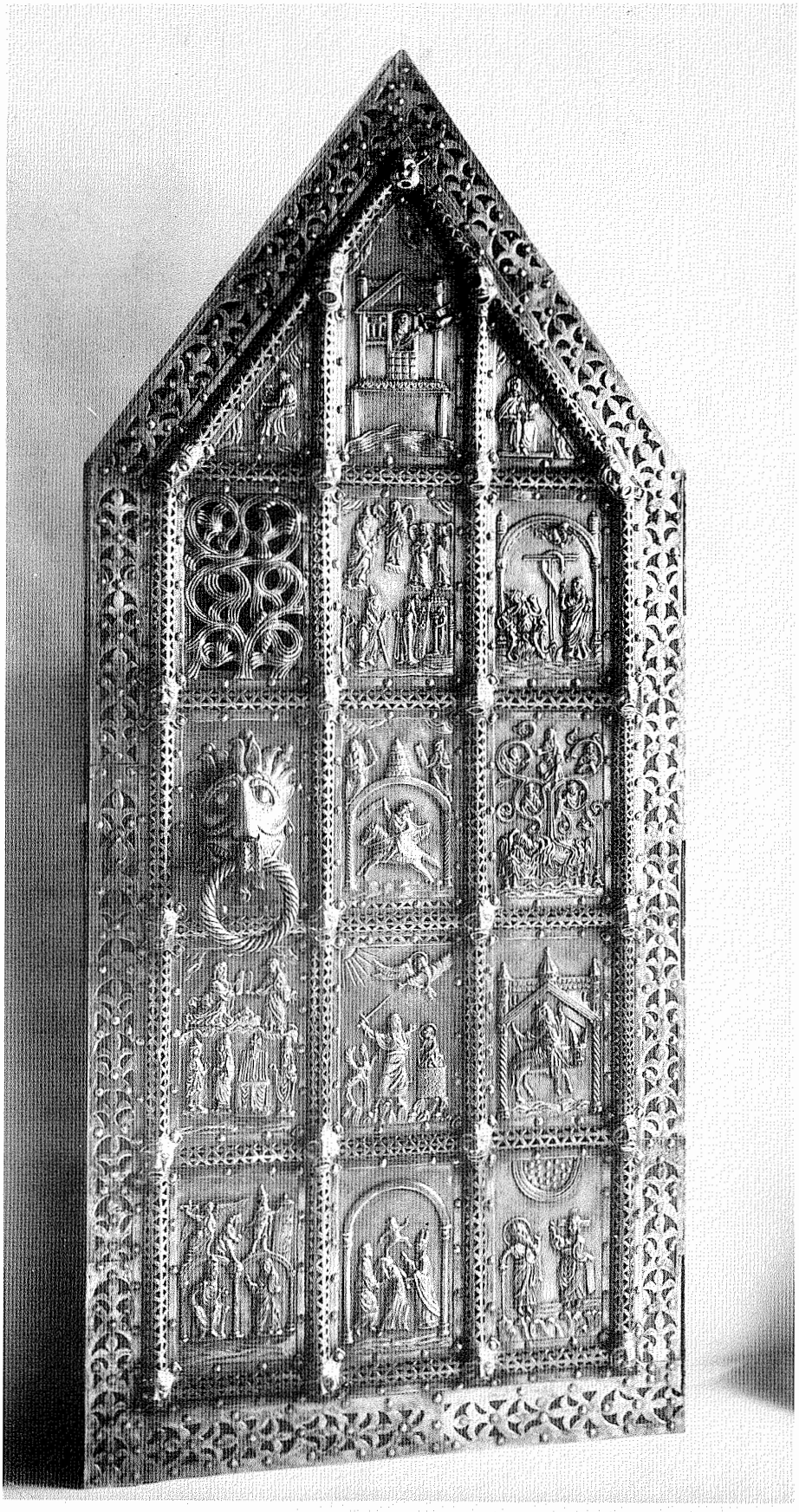


Interior Iron Gate for Samuel Yellin Metalworkers 1917

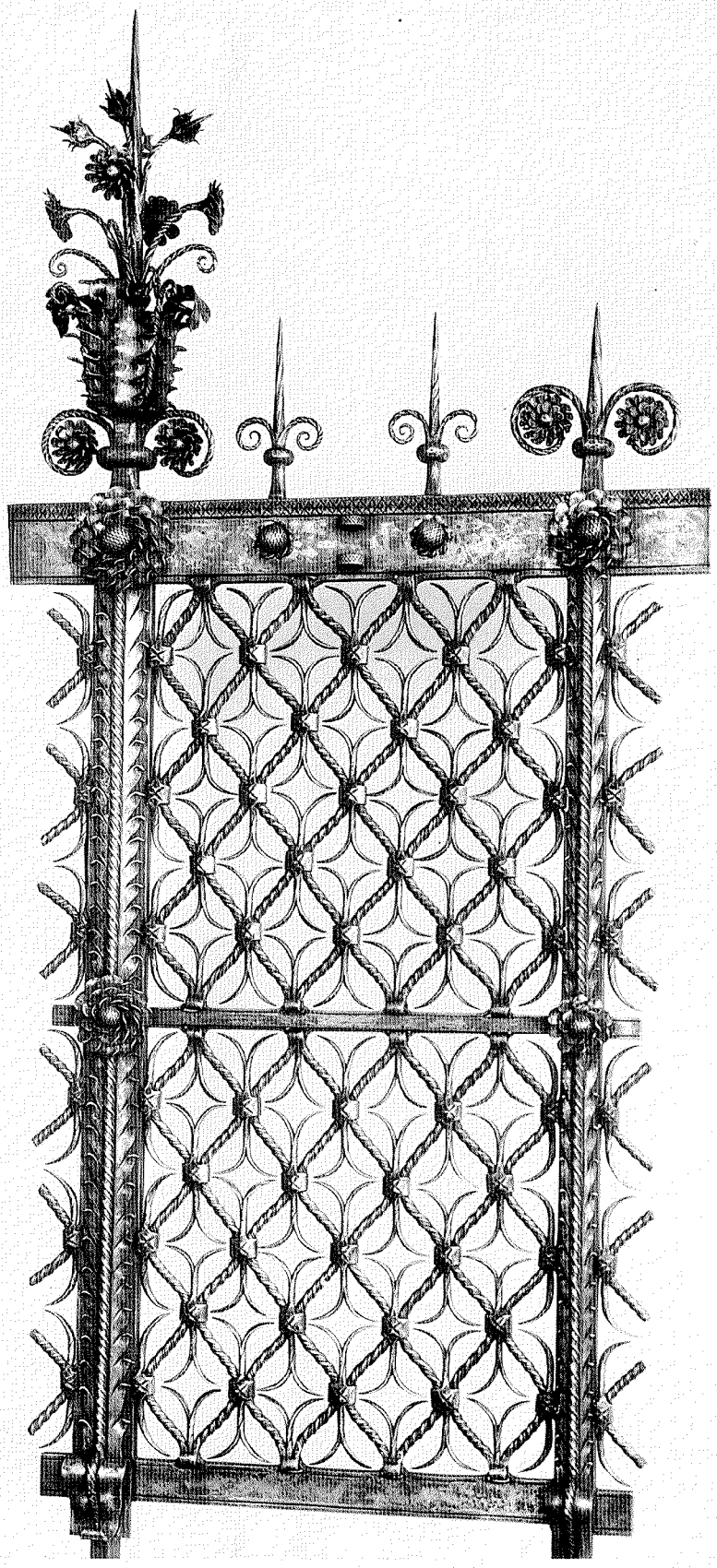


Iron Gate Detail Grace Cathedral San Francisco 1931

Iron Lock Detail Grace Cathedral San Francisco 1931



Bronze repousse door Pebble Beach California 1927



IRON BANK GRILLE STUDY FOR CENTRAL SAVINGS BANK NEW YORK 1929

# Francis Whitaker ~ Echoes into the New Millennium ~

By Dorothy Stiegler

# We spent the day at the Santa Catalina School looking over the beautiful Collection of his work.

Everywhere you turned . . . the window grills and lattices outside, the altar pieces inside the chapel, lamps, to the many dozens of door adornments and hardware . . . Francis had left his mark! The School has one of the finest collections of his work on the Monterey Coast.

We drove around the area and Francis pointed out other pieces of his work and little tid-bits of information regarding each one. They were like children to him. Each piece an extension of himself. Separate from him, but still connected by the invisible apron string.

He was a mountain of a man to me. My Hero, my surrogate Father, my Mentor, Teacher, Taskmaster, and my Friend--All in One. Bigger than life, here forever in my mind, never further than a phone call away . . . and now forever belonging to the Ages.

When I rushed into his room on that final day, I knew he was going. Like a sledgehammer to my heart, I knew it. Everything about our times together came back in a blinding rush; a flood of tears and anguish covered me like a thick fog that followed me for days.

As a fledging smith in the mid-70's, I studied with Barry Rice, the great Frank Turley, and, of course, Francis Whitaker. The pictures and the work of the masters before us loomed over my head as something to work towards. Turley opened doors I didn't even know existed when he showed me books of the late Fritz Kuhn. Tom Bredlow showed me the work of the late Samuel Yellin. Francis Whitaker showed me the works of the late John Catlin as well as that of Yellin and the late Julius Schramm. Years later I saw the works of the late Cyril Colnik, the late Muzzucotelli, and on and on . . . the *late* this person, the *late* that person . . . they were all gone, the Old Masters of the work. To be sure, in the United States we had many remaining who were living and forging out a place in history such as Nahum Hersum, Judd Nelson, Carl Jennings, Albert Paley, Frank Turley, Tom Bredlow, and a handful of others who had enough sense to start a little group they called The Artists' Blacksmiths of North America. There were still many fine masters living and working in Europe, but they were a lifetime away from me at the time.

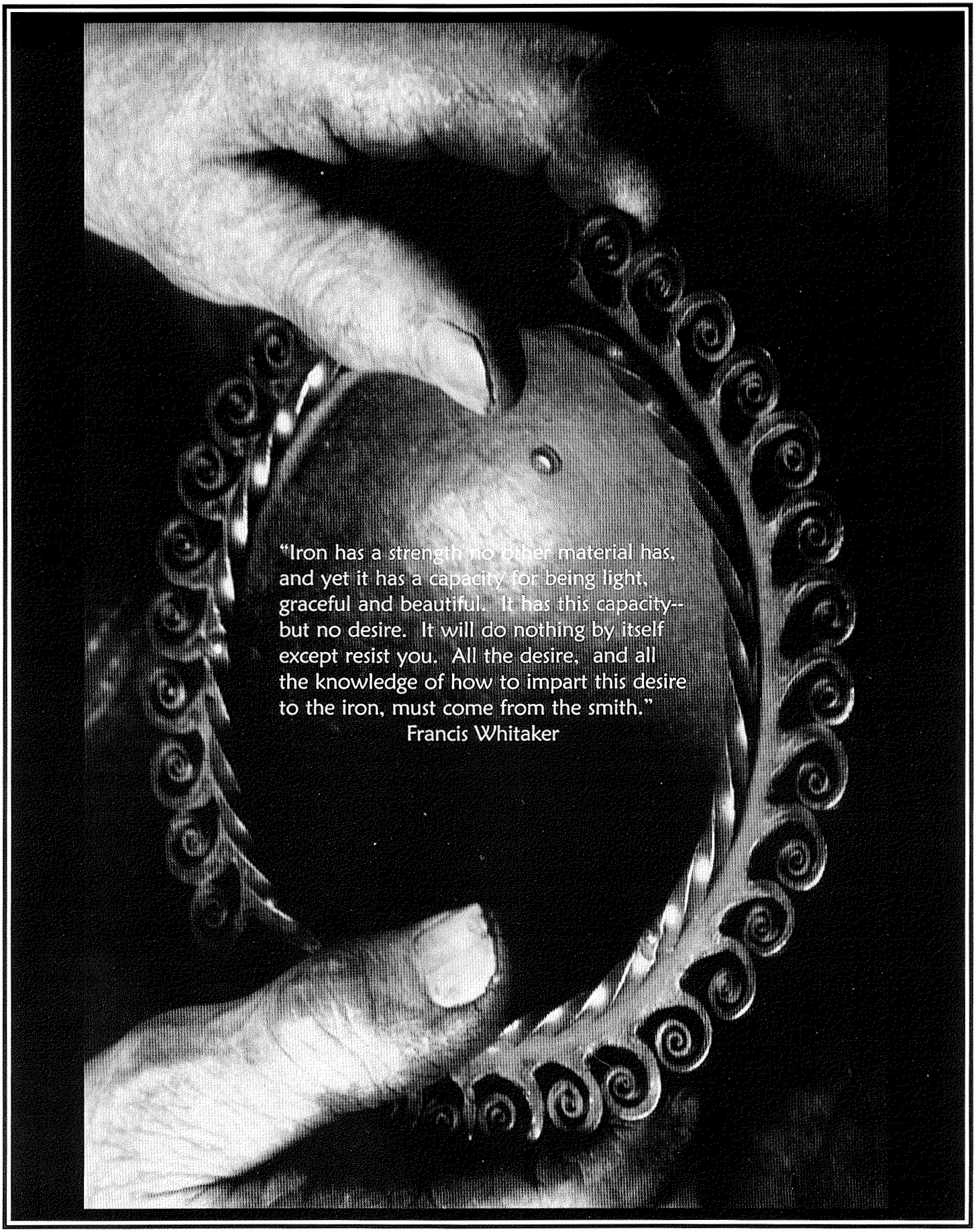
Over the next twenty-five years I was privileged to work with or learn from many fine smiths, most of them former students of Francis at one time or another . . . Darryl Nelson, Rob Gunter, Bill Fiorini, Bob Bergman, Joe Pehoski, Toby Hickman, Dan Nauman, Phil Baldwin, the list goes on and on for miles. I couldn't name all of them. Francis had his hand in the life of nearly every successful blacksmith in America at one time or another. Whether it be a direct workshop--the lucky person--or a demonstration that they watched, work of his they saw and studied from, or perhaps one of his three books; not too many of us didn't learn something from Francis either directly or indirectly. AND, he did this while he walked among us . . . teaching, inspiring, passing on the knowledge, living his mission in life . . . helping to create an entire generation of blacksmiths where previously there had been only a few.

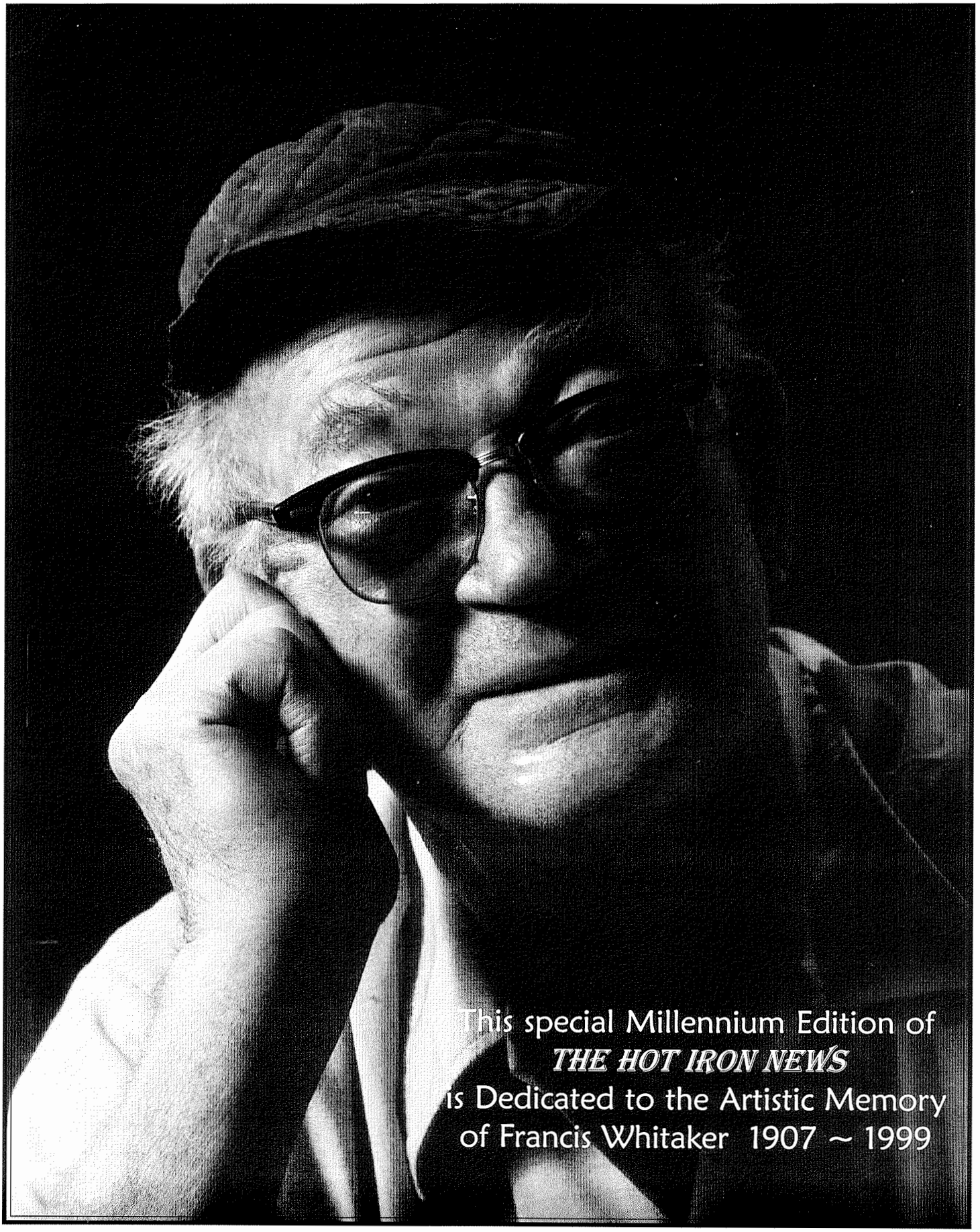
Now that his life has been transformed to echoes, I see that it is the duty of everyone of us who studied directly with Francis to step forward to the jumping-off place and pass the torch along into the historic Millenium for him, for each other, and for ourselves. His pursuit of excellence in the field will not be forgotten, but built upon through the teachings of all those who learned from him. We will show two friends, and they will show two friends, and they, in turn, will show two friends. With his teachings, we will add ourselves and our own thinking to our work, and we will bring the new Iron Age into the Year 2000 with the stability of the Masters before us, but with the boldness and the excitement that only the next generation can give. Into every piece of Iron that crosses our anvil, we bring new and youthful philosophy to the work, always looking into our own future, through the windows that the Masters before us created. Through the doors of opportunity and challenge we move as if in unison, as a sea of smiths pouring onto the shores of the Millenium. And we hold the past in our hands as well as the future!

We pick up the torch together, move forward as a unit and become one of the powerful ripples of his legacy and the legacy of all who went ahead of us. It is our turn to pass on what we know, regardless of our age. To have lived with, learned from and worked alongside a living Master is profound. To not pass on what we have learned is unthinkable, and to pass it on is the only way into the future with integrity intact. As we believe in the beauty of our own dreams and charge full-speed ahead into the future, we have a duty to take as many with us as we can. America must never again be without those who can make beautiful iron. Into the future we must go, taking that drive for the relentless pursuit of excellence with us. We must take the time to do it right the first time because, as Francis said, "If yu don't, what makes you think you will have time to do it right the second time?"

As Francis and I strolled that day on the beach in Carmel, near my home, I said to him, "Francis, what will I do when you die?" He stopped, looked around at the beach, the water, and the beautiful trees, turned to me and said, "I will never be gone, Dorothy, I will be a whisper in the breeze, and I have taught you everything you need. I will be right here beside you looking over your shoulder." ~

Francis Whitaker was named a National Heritage Fellow by the National Endowment for the Arts in 1997. At his request, he was grasping his hammer at the moment of his death.


"Iron has a strength no other material has, and yet it has a capacity for being light, graceful and beautiful. It has this capacity-- but no desire. It will do nothing by itself except resist you. All the desire, and all the knowledge of how to impart this desire to the iron, must come from the smith."
Francis Whitaker


This special Millennium Edition of
THE HOT IRON NEWS
is Dedicated to the Artistic Memory
of Francis Whitaker 1907 ~ 1999

Francis Whitaker
Co. Rocky Mt. School
1993 County Rd. #106
Carbondale, Co. 81623

September 20, 1999.

Dear Jerry L. Kagele,

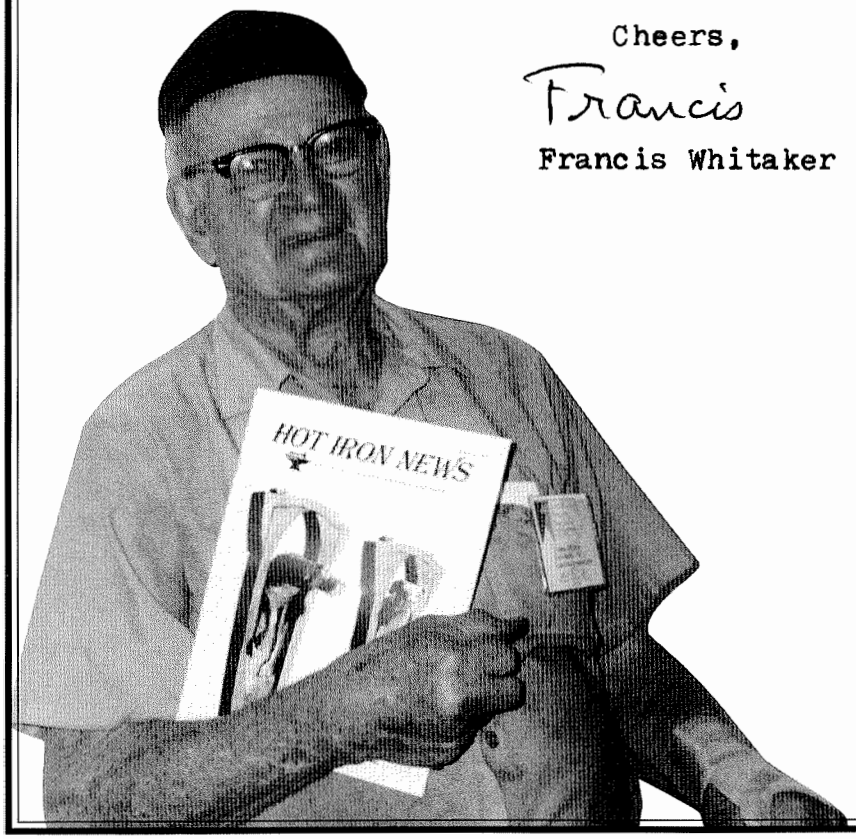
So - you would like my commentary on the century. Guess I have covered it as few others. Sure. My handwriting is not so good anymore, so I will type it. When I went to Caniron with my friend Sara, I told her they wanted the story of my life. Sara asked how many days the Conference would last and when I told her four days she said, " You will not have enough time!" A couple of pages maybe?

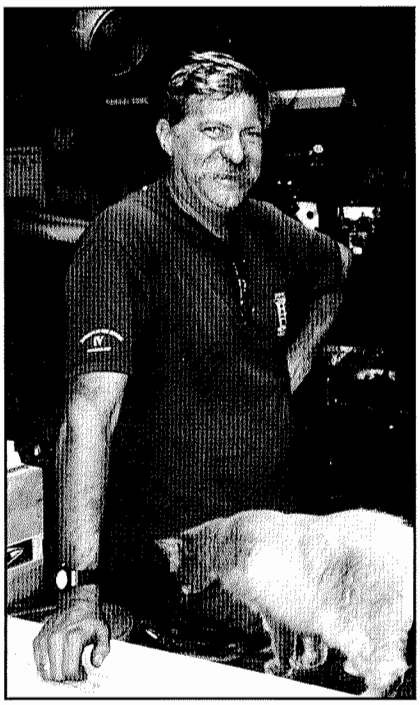
I am leaving September 20th to return on October 4th, again on October 17th to November 11th to work with Bob Becker at the CampbellFolk School, best time to talk on the phone would be between those trips,

Cheers,

Francis

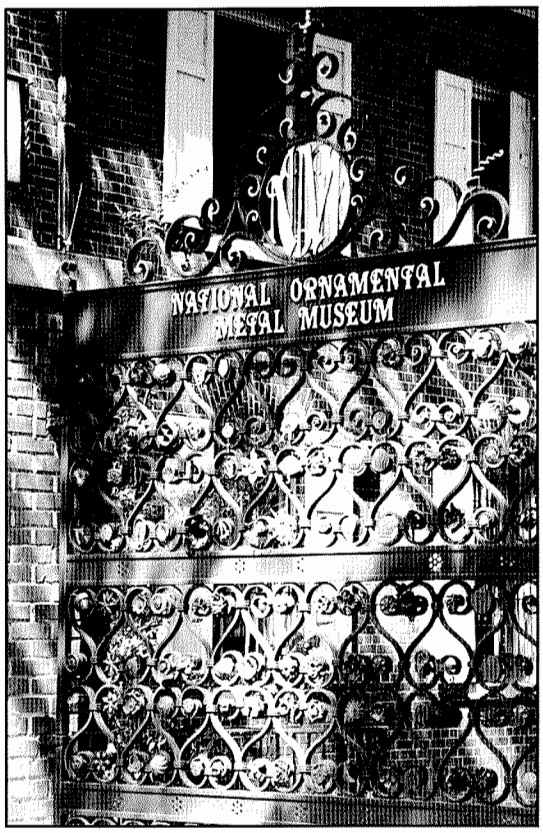
Francis Whitaker





# Jim Wallace ~ The Renaissance Is . . . Now! ~

Jim is the Director of the National Ornamental Metal Museum in Memphis, Tennessee, a unique vantage point from which to comment on American Iron Culture.




It's almost time to put out the cat, flip the switch, and close the door on this year. Time to take off our boots for a while and be able to look in the mirror at quitting time and not be greeted by the carbonaceous image of what was once ourselves. Time to enjoy the holidays and assess our goals. The plus this year is that all of those nines turn into zeros, giving us more reason to celebrate, and maybe reflect on what happened and what might.

This past century has been riddled with monumental achievements. The temptation to sum them up in Madison Avenue sound bites is almost overwhelming. "Been there; done that". We have stepped on both poles, the summit of Everest, surface of the Moon and the deck of the Titanic. We have touched Mars and fondled atoms. "You've come a long way, baby".

Like it or not, even as blacksmiths, we have been part of those times. Our trade has evolved both technically and esthetically along with the rest of the world. Thank God for electricity. We can work after our day jobs, drill holes quickly and accurately, stick iron together with a squirt gun, cut intricate shapes as fast as drawing with a pencil, power the power-hammers, heat lunch in one-minute-twenty-three seconds, or pop-a-top on a cold one. We can get tools or supplies absolutely positively, overnight, and there are some amongst us who can download design or technical information in minutes, or engage in extended "chats" on the relative merits of one welding method versus another. Whether one chooses to indulge in all this is still optional to a certain degree, but there is no question that it directly impacts us all.

One hundred years ago, the best-trained smiths in the world were stepping off boats and onto Ellis Island. Products of hundreds of years of traditional guild training (and servitude), they were looking for new starts. Many found them, and we know the best immigrant blacksmith/businessmen: Frank Karalowski, Oscar Bach, P.A. Fiebiger, Samuel Yellin, and Cyril Colnick. The thousands of smiths who labored in the hundreds of ornamental iron shops such as Winslow Brothers (over 1000 men), Samuel Yellin Metalworkers (300, one of whom was the late Francis Whitaker) or Florentine Craftsmen, remain largely anonymous. Then around 1930, it went poof.

Vast amounts of wealth evaporated with the stock market crash, and subsequent depression. The market for decorative ironwork disappeared in short order. Add to that equation a shift in style. It was the post-Modern, and *slick* was in and *Deco* out. Courses in the decorative arts disappeared from the curriculum in schools of architecture, and generations of designer/architects who hadn't a clue about ironwork, stained glass or tile were spewed forth. With few exceptions, the smithies of this country shut their doors and scrapped out the tooling. By the time Elvis recorded *Love Me Tender*, it was rare to find a blacksmith shop listed in the Yellow Pages anywhere. And it stayed that way until the "back-to-the-earth" movement of the 1960s.

Along came Alex Bealer and his pivotal book, *The Art of Blacksmithing* which found its way to college campus and

commune alike, and the fires were again sparked. Not by any stretch of the imagination burning yet, but sparked. Heeding a call from Bealer, twenty men gathered in a cafe in Lumpkin, Georgia, and formed the Artist-Blacksmiths' Association of North America. The spark became a small flame which grew each year until now there are more blacksmith shops in Santa Fe than there were men at that first meeting.

The gut-level rebirth of American blacksmithing, which had no school (except a few farriers schools and the legendary Frank Turley School of Blacksmithing), very few books and certainly no respect from the architectural community, was free from rules. Americans were not bound by any specific style, although the *Art Nouveau* was coursing through a lot of folks veins, and there maybe some truth in the notion that we were technically unable to work in real traditional styles. However, people like Paley and Kington, university-trained metalsmiths, discovered iron and a whole new freedom. Blacksmithing began to appear as parts of university programs and craft schools. By the mid-1970s there were new books being published, plenty of schools, and a receptive audience. Paley's *Renwick Gates* (1974) raised eyebrows around the world. American ironwork had been reborn, nursed, weaned, and thrown to the wolves.

Fortunately, those wolves were the descendants of the same pack that coddled Romulus and Remus. We taught ourselves traditional blacksmithing and, after being hit in the face with a two-by-four, modern business practice. Old adages like, "Strike while the iron is hot!" were replaced with Gichnerisms: "You won't lose money on a job you didn't get". Architects began to take us seriously and design journals carried stories, but until the mid-80s, there were plenty of days spent sorting nuts and bolts, or sharpening drill bits. We developed a market which forgot about us. Then it went *Boom!*

The Nineties have seen ironwork proliferate in usage not experienced since the early Twenties. Tonnage of gates, rails, and lighting devices are being produced by hundreds of designer-blacksmiths around the country. Virtually every major town can boast of at least one smithy, and, in some trendy areas enough to field a softball team. To quote one long-time practitioner, even the bad blacksmiths are busy. Whether this is a result of the explosion in wealth generated by the stock market, a rekindling of the desire to ornament, or a combination thereof, is open to question. No matter what the reason, great work is being done by American blacksmiths. One can hardly ignore the similarities to the Twenties.

Ironwork has reached such popularity that it is now found at Wal-Mart, and through a myriad of mail-order houses, from rusty candlesticks to faux-forged beds. The American iron boom is keeping smiths in India, Pakistan,Mexico and Thailand busy. The quality is exactly what one would expect, and there is ample money to be made in the repair of those goods if you can stomach it. Still, the question that keeps looming is when will this rage go the way of the hula hoop? And it's not if, it's when. And then what?

The rich will always be with us, and they will continue to commission works as they have for thousands of years. Ironwork, especially that of the highest quality, will continue to be in demand and the designer-blacksmiths who have developed a clientele and reputation among that class will stay in business. When things do slow down, it will be the smiths who know how to downsize an operation and concentrate their efforts on quality work that will survive. The rest will be dinosaurs, just as they were in 1930.

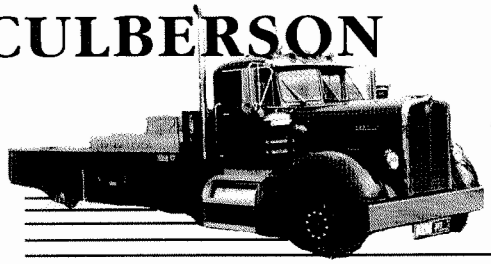
In the meantime, let's enjoy the good times and take every advantage of them. The economic climate is allowing for the exploration of new forms and ideas. Aluminum, and colors other than black, public art and things that are more sculptural than functional. Great new tools, and enough money for our work to afford third-generation graphite flyrods and the time to use them.

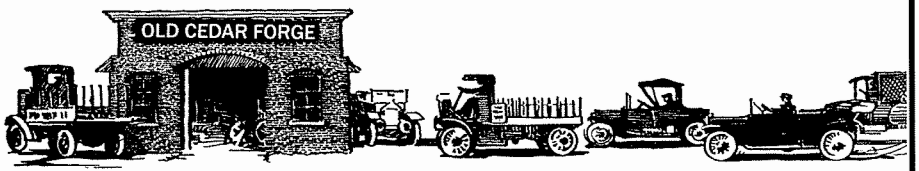
With all that said, go out there and begin the New Year making something great and wonderful!

*So long as the system of competition in the production and exhange of the means of life goes on, the degradation of the arts will go on; and if that system is to last forever, then art is doomed, and will surely die; that is to say, civilization will die.*

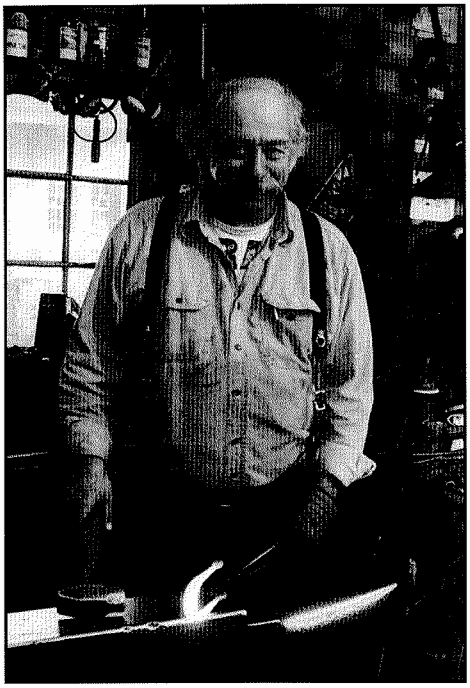
--William Morris, from *Art Under Plutocracy*

# CULBERSON HAPPENINGS






## Jerry Culberson ~ A Look Back ~



With a New Century looming ahead of us, it might be helpful to take a brief look at the past. As a young man working on Michigan farms in the 1940's, we sharpened bean knives and plowshares, repaired machinery, made clevices and shoed horses out of small unremarkable home blacksmith shops--but we got the job done, sort of. Welding would sure be a better way to fix things and, after all, blacksmithing was said to be dead anyway.

There were only two old blacksmith shops left in the thumb area of Michigan; one in Otisville (a very old man not doing much anymore), and one in Saginaw (a blacksmith who worked only for Ford and GM making very specialized prototype forgings).

When I went to high school my elders decided that I would take a vocational welding class so that I could learn how to weld, and thus be able to repair broken farm equipment faster and easier. Throwaway plowshares were cheap and bean knives could be sharpened on a grinder, couldn't they? And, anyway, blacksmithing was dead.

Welding was taught in what had been the blacksmith shop classroom. All the anvils, forges, swedge blocks, mandrels and tools had been shoved into a corner in a great big pile. Now welding machines stood under the smoke pipes and we proceeded to weld, oblivious to the history piled in the corner.

One day we got a classroom project to build playground equipment for the elementary school--a 17' giraffe made of ½ x 4" flat bar donated by the Defoe Shipbuilding Company. As we were attempting to bend the giraffe's nose with an acetylene rose bud torch, I suggested to my instructor, Mr. Montgomery, that I thought we could make real progress if we could drag one of those old forges out and fire it up. We still had 25 tons of coal in the bin and we could get a foot-long heat and really get it bent around in a jiffy. Mr. Montgomery thought that was a good idea. We did it--and it worked!

Del Montgomery had been a blacksmith all his life (some 60+ years) but had become a welding instructor by World War II. He was amazed to find a 14-year-old kid who knew anything about blacksmithing. For the next four years he took a special interest in me. He taught me a lot about blacksmithing and enough about welding to get by. He and I both knew I wanted to be a blacksmith a whole lot more than I wanted to weld. But, we both knew blacksmithing was dead.

After high school I joined the U.S. Navy for a brief tour--fast forward 24 years! When I returned in 1980, the first thing I did was buy a house in Port Orchard, Washington, on 2-1/2 acres and build my blacksmith shop out back. Whether blacksmithing was dead or alive, I wanted to blacksmith--it had been in my blood all those years.

On a very lucky day in May, I stumbled down some steps in Pioneer Square, Seattle, and there stood Jack Slack, Blacksmith! What a find! Not only was there another human who liked and practiced blacksmithing, but he informed me that we were not alone in the world. A fledgling group called the NWBA had just formed.

He steered me to Darryl Nelson and Terry Carson at Fire Mountain Forge in Eatonville for a weekend workshop. *Holy Smoke-it was like lighting a fire under a rocket.* Not only were there like-minded people in the world, but they were having fun and making fun stuff by hammer and hand-Blacksmithing isn't quite dead! After a few workshops with Francis Whitaker, Al Bart, Nahum Hersom, Freddie Habberman, Russ Swider and others, *the rocket was on the pad with main engines firing.*

In 1983, I began construction of Old Cedar Forge--*my rocket was off the pad.* The shop was built with workshops and teaching in mind from the outset and now, after 80 workshops under the belt and words ringing in my ears . . . "It takes 60 years to learn and then you die" ("Francis") and "The life so short, the craft so long to learn" (Al Bart). Words, of course, handed down to them from blacksmiths before them.

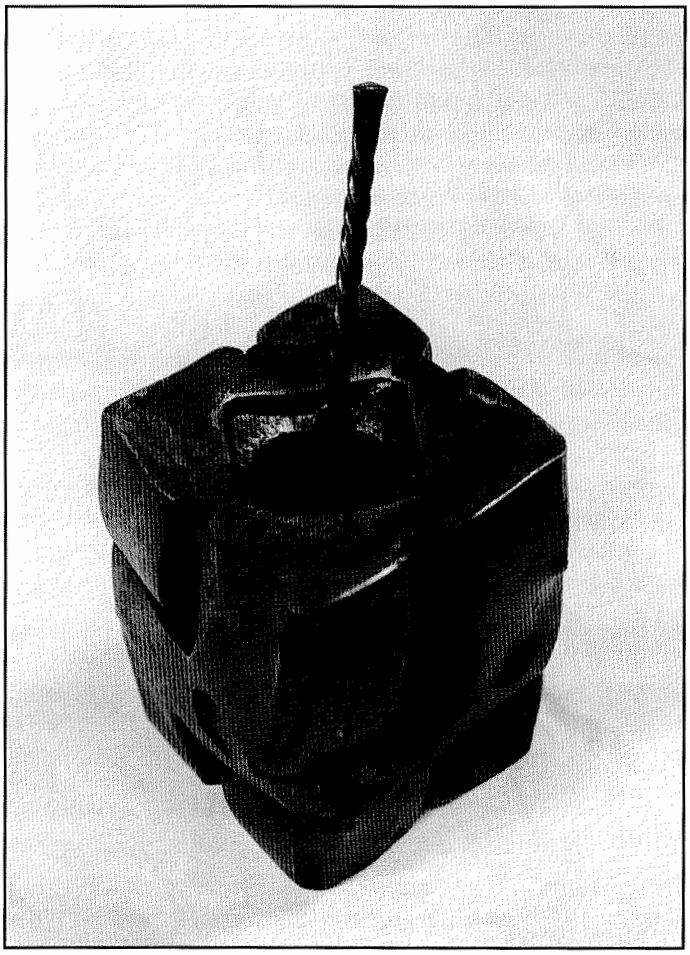
We surge into the future on this wobbly rocket.

The NWBA's 20th Anniversary, a gift from God, is but an infant in the history of this craft and yet a very promising beginning for a craft that was dead. We in the here-and-now have the future of this rocket in our hands, but it needs a guidance system. I will call it CRAFTSMANSHIP.

Craftsmanship is the key to the future. Each person must strive to do his or her very best to create each and every piece of work with the utmost care, from its design and construction to its presentation to the public. It is far easier to educate the public in the ways of well-executed ironwork if that ironwork has been made lovingly, piece-by-piece, with *true craftsmanship* every step of the way. Our clients are our future, and the only way to proceed with the future is to build it one client at a time.

The NWBA is our common rocket ship. Conferences, workshops, hammer-in's, all help build skill and confidence which helps promote craftsmanship, the fuel for this rocket. We may not achieve the excellence of a Yellin, or Bakewell, or a Whitaker, but maybe we can help lay the foundation for the next true craftsman. We must set a goal to achieve the level of skill that results in excellence.

Old Cedar Forge pledges to continue to teach this craft and help fuel the craft into the future. CRAFTSMANSHIP IS ACHIEVED THROUGH LEARNING AND THEN PRACTICING THE CRAFT TO THE HIGHEST LEVEL FOR 60 YEARS . . . AND THEN YOU DIE!



***Old Cedar Forge's state-of-the-art Y2K-compliant Computer system.***

## Art in the Millennium . . .

*We come from a world where we have known incredible standards of excellence, and we dimly remember beauties which we have not seized again . . . The public for which masterpieces are intended is not on this earth.*

--Thornton Wilder, from *The Bridge of San Luis Rey*

BLACK DOG FORGE

# Louie Raffloer ~ The Art We Almost Lost ~

*Louie and his associates at Black Dog Forge are known for their creativity and innovation--as well as Seattle's Premier Social Event--the Blacksmith's Ball! Here, Louie reviews changes in the Craft--and Peers Into the Future!*

This year saw the passing of Francis Whitaker, one of the many fine humans that have brought our art back from the windy trail to extinction. His ideas and teachings have, and will always, give us inspiration. He has given us much to think about. May he rest in peace . . . well, until there's a storm . . . then we'll know he's in Heaven, forging the thunder and lightning for us!

In his lifespan, the world has seen great changes. For the blacksmith, the changes have been, in accordance with normal trends of progress, in tools and production. These changes have benefitted us all greatly.

From the beginning of time, we have used the most effective methods and tools available to us. In the revival process that our craft has gone through some have chosen the route of history and enjoy the most that technology of our time can offer; others have chosen the other direction, preserving the ancient pre-industrial ways. Blessed are both schools of thought, as the former is innovating for future generations and the latter is keeping alive the information we came close to closing forever. Any argument about which direction is better than the other should be viewed as shady. The finished work would be a better gauge of comparison.

The image of a blacksmith, to the larger population, is one of a tradesman of Yore. The same trend of advancement in tooling, production theory and consumer attitudes towards disposable goods, has taken a lot of work out of our fires. We have certainly experienced a decline of the necessity for the "village smith." The demise of blacksmithing, as a trade that was once a vital part of our industrial culture, is not complete. There will always be tasks that can only be done in our fires. We will never be useless.

On that note, we have seen the trade return to our lives as a useful one. Actually, it would be stated more correctly, that is usefulness is now receiving a new recognition. Attitudes towards modern blacksmithing, let's say in the last 25 to 35 years, have given us a world of new possibilities. The metal sculptor has been shown a new medium for expression. Architects, designers, and retailers, have added our work to their offerings. Every blacksmith that I know is too busy to take on work that I attempt to refer to them. This is good.

Accessibility to the forge is another great boon to our trade. Through history, the way a person got into a trade was through an apprenticeship which led to a journeyman status and then possible mastery of the trade. In these days, where lateral movement in vocations are possible, we see people getting interest in blacksmithing at a later age. Only a small percentage of blacksmiths that I have met started before they were twenty. The lure to the smithy is strong for a creative person and if that creative person had been kept busy for years with a job that didn't fuel their passions, then we get another forger.

This lateral movement has also given us a mighty flow of women into the shops. With gender barriers eroding to near disappearance since the Seventies, women are discovering that the burly-bearded stereotype of the blacksmith is way outdated. Something that I have preached to students for years, especially girls, is that physical strength or a self-perceived lack thereof, is not an issue. A healthy mind and confidence are the only tools the student needs prior to picking up their first hammer. Endurance will follow. Couple this with the undeniable thrill of the first twenty or thirty tapers, and we have another blacksmith born. Just took a look around the N.W.B.A. conferences or an ABANA gathering and see: Most of the women you see there these days are not *blacksmith ladies*; they're not *ladies* at all: they're

*blacksmiths!* (With the notable exception of Louise Perranegra, who is *both* a *lady* and a *blacksmith*!) I do not mean to under-rate the importance of the women for whom the gentle oxymoron *blacksmith ladies* was coined. The activity and support given by spouses of N.W.B.A. blacksmiths and the interest shown by the casual hobby smiths of our organization is yet another reflection of the revitalization of the art we almost lost.

The shop I work in is structured economically like a collective and politically like a constitutional monarchy. Although we are of the school of thought that enjoys as much convenience as we can afford, we still know that total success will be achieved when works created bear no evidence of modern production. We know many smiths that share this respect for the ancient and we try our best to have paid it respect in every job. As any professional blacksmith knows: one of the main difficulties in achieving such a standard is economics. I've only encountered a few clients that are willing to bear the expense of a job done in an *all natural* method. With time, the reputations of smiths we all know gets them the clients that understand and are willing to pay the higher price. In the meantime, we need to concentrate on creating the most beautiful work within our means.

Lest we forget, here is a short list of things that have made our lives, in the shop, a lot easier than our predecessors: cheap fuel in gas form, Mig welders, Tig welders, motorized saws and drill presses, air compressors and their tools, vise-grips, fans, and even duct tape. The modern and traditional smiths alike can look around their work zones and, unless it's a historical re-enactment shop, see that modern conveniences have taken root (don't overlook that fan you keep cool with!) Industrial suppliers sell us stock steel sizes and shapes that once had to be forged into finished dimensions (my great-great grandfather could not simply order a stick of 7/16" round stock).

With our understanding of the progress industry has made from our past, I pose a question to our dear, departed master, Francis Whitaker: Francis, assuming a blacksmith was born in our world at the moment you passed on, and with God's Will he or she lives until 92 years of age like you, what will their work be like? How will they have made that work?

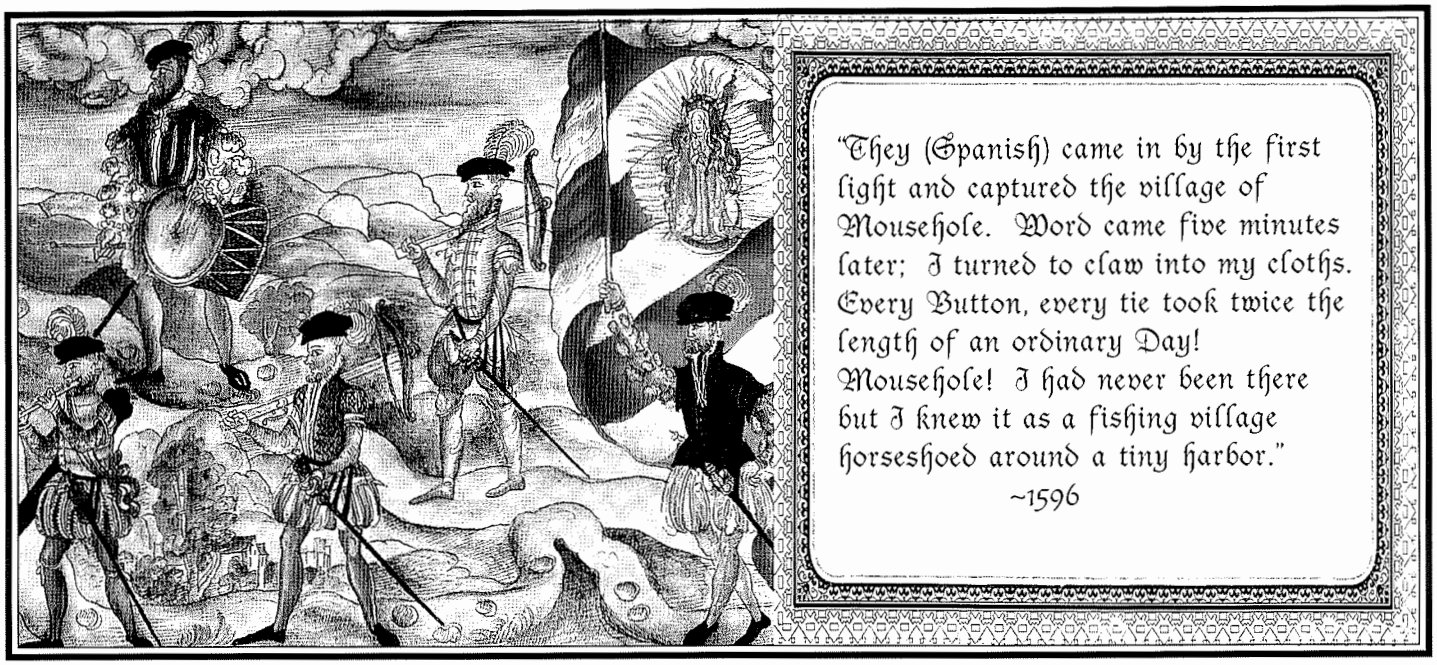
Francis may answer this question, he probably will. However, time is measured differently in Heaven and we must wait 92 years for the answer. We have no idea what design evolution will show us. We can only hope that attention to culture will continue to be seen through the creation of artists. It is certain, though, that in 92 years the master smith will have been a beginner at one point. The connection that beginner will have with the iron will strike the same chords in their hearts as it did in our ancestors, and as it did for us. All of the trials and failures will still add up to create the sum of their success.

Certainly, we know that our most important physical tools will be required: the fire, the hammer, and the anvil. Let's fantasize for a moment. Our forge will burn a small, inexpensive pellet of a yet-undiscovered element. The forge will also be adjustable from 300 to 2300 degrees in units of ten degrees and produce no ambient heat at all. Our hammer will be steel, but the handles will, again, be made of materials beyond our present comprehension. We will feel the metal forge like we have never before, the natural movement of steel will be understood in a new way. Oh yeah, no matter how hard we pound with this new hammer, we'll never get sore elbows or carpel-tunnel syndrome!

Our anvil might be an alloy created in the early years of the New Millennium. It may only weigh 100 pounds but it will be as dense and have the great strength of a 500-pounder. It will never yield to an accidental hammer blow or a chisel cut too deep (nor will that chisel ever get dull!).

Our steel will be the same as it is today. It will be mined and processed and worked and then returned to the earth as rust in the future Millenniums, as in the past. However, the price of this steel will have risen roughly 3500 percent. You see, the price of steel has gone through the ceiling because the yet-undiscovered elements that make our miraculous forge fuel pellets, our slick new hammer handles, and our high-performance ultra-light alloy anvils "came from a meteor that struck a small island in the Pacific Ocean, where a meeting of the Global Labor Federation was in progress." The annihilation of this group (the enforcement wing of last Millennium's World Trade Organization) caused an instantaneous uprising in all the prisons and slave-labor factories of the steel industry. We must support these hard workers if, for no other reason, because we are all members of a growing fraternal brother/sisterhood of people who get much too close to things that are much too hot.

Afterword: We all need to remember that many of our greatest treasures are still among us. I give my thanks in the deepest way to the three people who gave me my career in 1990. Those three people, all so radically different from each other, were Mike Linn, Darryl Nelson, and Paul Casey. I also would like to thank the five most influential blacksmiths in my life: Mary Reid Gioia, Maria Cristalli, Kelly Dawn Gilliam, and Dan Schwarz. Once my students, now my teachers.



"They (Spanish) came in by the first light and captured the village of Mousehole. Word came five minutes later; I turned to claw into my clothes. Every Button, every tie took twice the length of an ordinary Day! Mousehole! I had never been there but I knew it as a fishing village horseshoed around a tiny harbor."
~1596

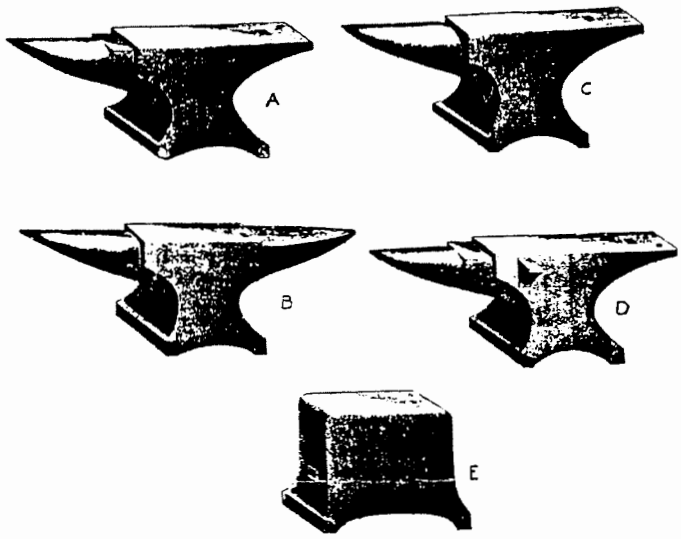
# A Visit to Mousehole Forge by Richard Postman

**After the destruction of the Spanish Armada, in 1596, the Spanish prepared to invade England a second time. They sent a raiding party to the southern coast of England to reconnoiter landing possibilities and do as much damage as possible. On the Cornish Coast was the fishing village of Mousehole, which was sacked and burned before the Spanish departed. This was the only time in history, after 1066, that England was invaded successfully, even for so short a time. The name is pronounced "Moussole" or "Mowzel" in the Cornish dialect. Richard Postman has continued his extensive research into the history of anvils and has traveled to Europe to uncover the Mousehole legacy.**

If you use one of the wrought iron anvils with a steel face-plate of American or English make you might be interested to know that the last one was manufactured about 1952. And, should you be interested in seeing or visiting one of the sites where any of these anvils were made, you would either find a parking lot or, in a few cases, structures that are far removed from anything to do with forging, let alone anvil production. However, there is one exception and, although most of it is in ruins, with imagination you can almost hear and feel the pounding of the old tilt-hammers as wrought iron is being produced and anvil bodies are being formed from this wrought iron. There is enough of this forge still intact to see, where not only wrought iron was made, but where anvils were welded together and where they were hardened and ground to a finish on great grindstones. In the middle of the 19th Century this forge was without doubt the world premier producer of anvils. It was called the Mousehole Forge and I would like to give you a bit of its history and take you there for a short visit.

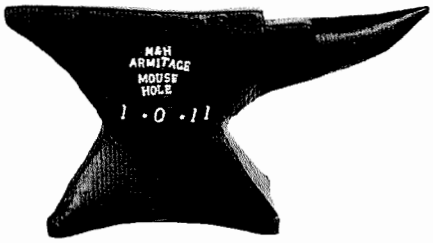
The Mousehole Forge is located just west of Sheffield, England, and just outside of the village of Malin Bridge on the river Rivelin. No one knows for sure why it was named "Mousehole," as the site was called that from the early 1600's. There is speculation in my book Anvils in America as to why the forge site was named "Mousehole", but it is most likely way off the mark. As far as records reveal, the site started as a lead-smelting mill and by the late 1600's was

known as a forge producing wrought iron. There is no mention of anvil production until about 1790, but thereafter anvils became the forge's main product. It continued with anvil production until about 1933. The forge was leased and owned by a number of different people and families over the years, but anvil-making seems to have begun when the Armitage family became involved in the enterprise in the late 18th Century. This family first leased and then bought the Mousehole Forge and operated it for almost 100 years. Therefore, most of the Mousehole anvils to be found today in this country have the name "Armitage" on them. Even after the forge was sold to Brooks and Cooper in 1875, the Armitage trademark continued to be used, most likely because it was so well known. In 1919 the city of Sheffield bought the forge in its declining years in order to control the water rights to the river Rivelin. Thereafter, the forge and site was leased to various people. Even after 1933 with the forge shut down the warehouse and the buildings were used in the manufacture of wood products. By 1940 the two-inch thick stone roof covering the forge had been removed as well as most of the metal installations within the forge. World War II saw the great stone walls of the forge pulled down and many of the stones carted away to be used in building bomb shelters. Shortly after the Hatfields bought the site in 1982, from the city of Sheffield, a local lady visited them and rather sheepishly said that her family had taken some of the stones during World War II and asked the Hatfields if they wanted them back.




**Standard Pattern Mousehole Anvils: A, The London Shape; B, The Double Piked; C, Farriers; D, Coachsmiths; and E, Sawmaker's Anvil**

In 1982, John and Julia Hatfield (local pharmacists and history enthusiasts) with much help began the restoration of the site. First they restored the manager's house (an unbelievable undertaking). The manager's house was still intact as was the warehouse, but were both in deplorable condition. In fact, the house had been used for sometime to raise chickens in and the droppings etc. were deep on the floors. The forge building site was covered with dirt and debris and looked like a rubbish heap with numbers of trees growing in it. After almost tearing the house down and rebuilding it stone by stone, the Hatfields moved in. The two-inch-thick Yorkshire stone roof on the house weighs in excess of 17 tons and had to be put on from both sides at the same time. The house is not very large, being one room wide and three rooms long, and is two stories having three upper rooms. You can imagine what the roof on the forge must have weighed as it covered about one-fifth of an acre. Next, they had the warehouse restored. Half of the warehouse was known as "the anvil store." Finally, work began on the forge site itself. Tons and tons of rubbish were removed, plus most of the trees, revealing the features of the forge. The back wall just above the window sills was intact and was part of the earthen dam for the large pond that fed water to the four wheels that operated the two



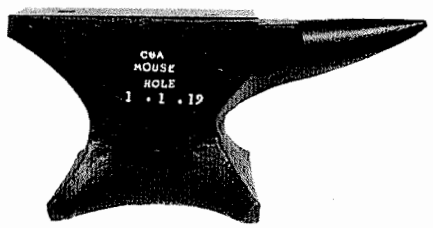

**123 lb. Mousehole Anvil**

tilt-hammers, the forge bellows, and grinding wheel. As business increased, the Armitages bought the next mill below them on the river in order to get enough air for the forges. The air was piped to Mousehole and these pipes are still in evidence. One of the four lob cams that lifted the tilt-hammer arm (or helve) is still in place as is the huge oak tree beam that supported the tilt-hammer mechanism. Other parts of the wooden supports are still in place, but in decay. As I said at the beginning, when standing in the middle of all of these ruins I can imagine those water wheels turning, hear and feel the hammers and see the activity all about me in the forges heyday. The records say that when the forge was in full production 30 anvils per day could be produced. If the anvils averaged 200 pounds in weight (they probably averaged more) that is three tons of anvils per day. The forge did produce some wrought iron from cast iron in later years in the puddling furnace, as the remains are there to be seen, but it certainly could not have produced anything like three tons per day on average. Therefore, during the working hours of the forge the overall activity within and without had to be of a high order. One indication of this activity can be found in the stone steps leading into the office and scales house which is worn down at least three inches on the outer edge. The office had been attached to the house, but is now a patio.

A small part of the outer foundation is now in lawn and the forge site in general is like a garden with various plants growing among the ruins. The garden effect adds to the beauty of the site and also keeps the Hatfields busy tending it. The city of Sheffield considered restoring the site from time-to-time before the Hatfields bought it, but as with political entities nothing came of it.

This is the briefest of histories of the Mousehole Forge from its beginning until today. Included is a ground plan of the Mousehole Forge as it appeared in 1890. With the exception of#19 and #20 which are lawn, this is how it appears today.

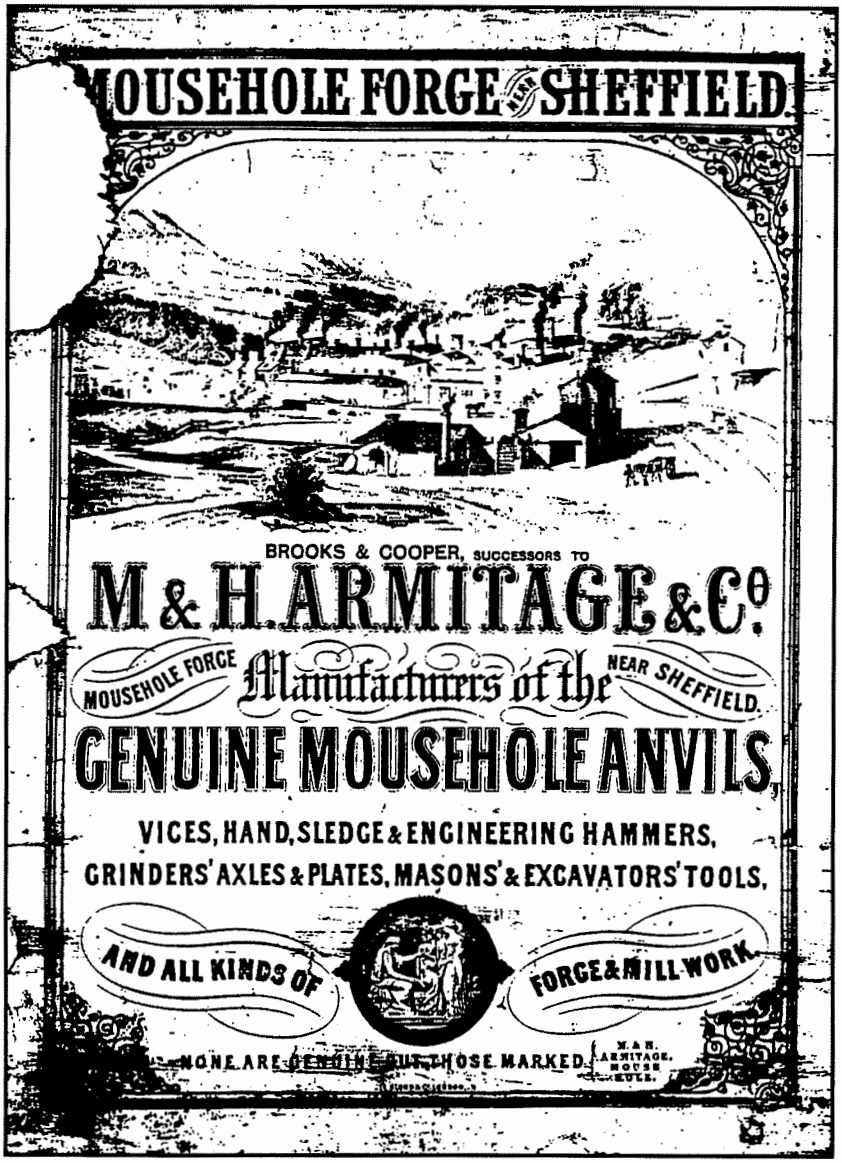
When John Catchings and I visited the forge in October, 1998, on an invitation from the Hatfields, our plane landed in at Manchester, England, which is approximately 30 miles over the Pennine Mountains from Sheffield. We approached Sheffield from the west and entered the suburb of Malin Bridge by way of the river Rivelin valley road. On entering the town we turned left crossing a large stone bridge (Malin Bridge?) over the river Loxley, into which the Rivelin flows. We started to ascend a hill known as the Stannington Road, but as the hill starts there is a drop-off into a lane or driveway angling to our left which we turn into. As we enter this lane it is almost like dropping into a different world from the town around it. I could compare it to going into a hole as it is very narrow and the trees on either side almost touch overhead. To our left the river Rivelin flows nearby. The Rivelin would be called a fast running stream in the Eastern U.S., as you can wade across almost any part of it. However, the Rivelin is unique in that in its fall, of about 280 feet over a two-and-one-half miles distance, the flow is gradual and continues as it flows to the Loxley. Therefore, one mill's exit or tall-gate, flows almost into the next mill's pond. In two- and-one-half miles the river supported 20 mills, one right after the other, Mousehole being the next to the last before the Rivelin joins the Loxley. The Loxley Valley, through which the River Loxley flows, is where Robin Hood is supposed to have come from. I am told that the Rivelin is the only river in England to support so many mills in such a short distance. As we drive along the lane we notice a brick electric power relay station to our left right by the river. We are told that this was the site of the Grogram Wheel (cutlers grinding wheel), the one that was used to pump air to Mousehole. The only reminent remaining of the Grogram Wheel is the weir which traverses the river. A weir is a diversionary dam over which water flows, but also backs up water so that it can be directed to the mill's pond.



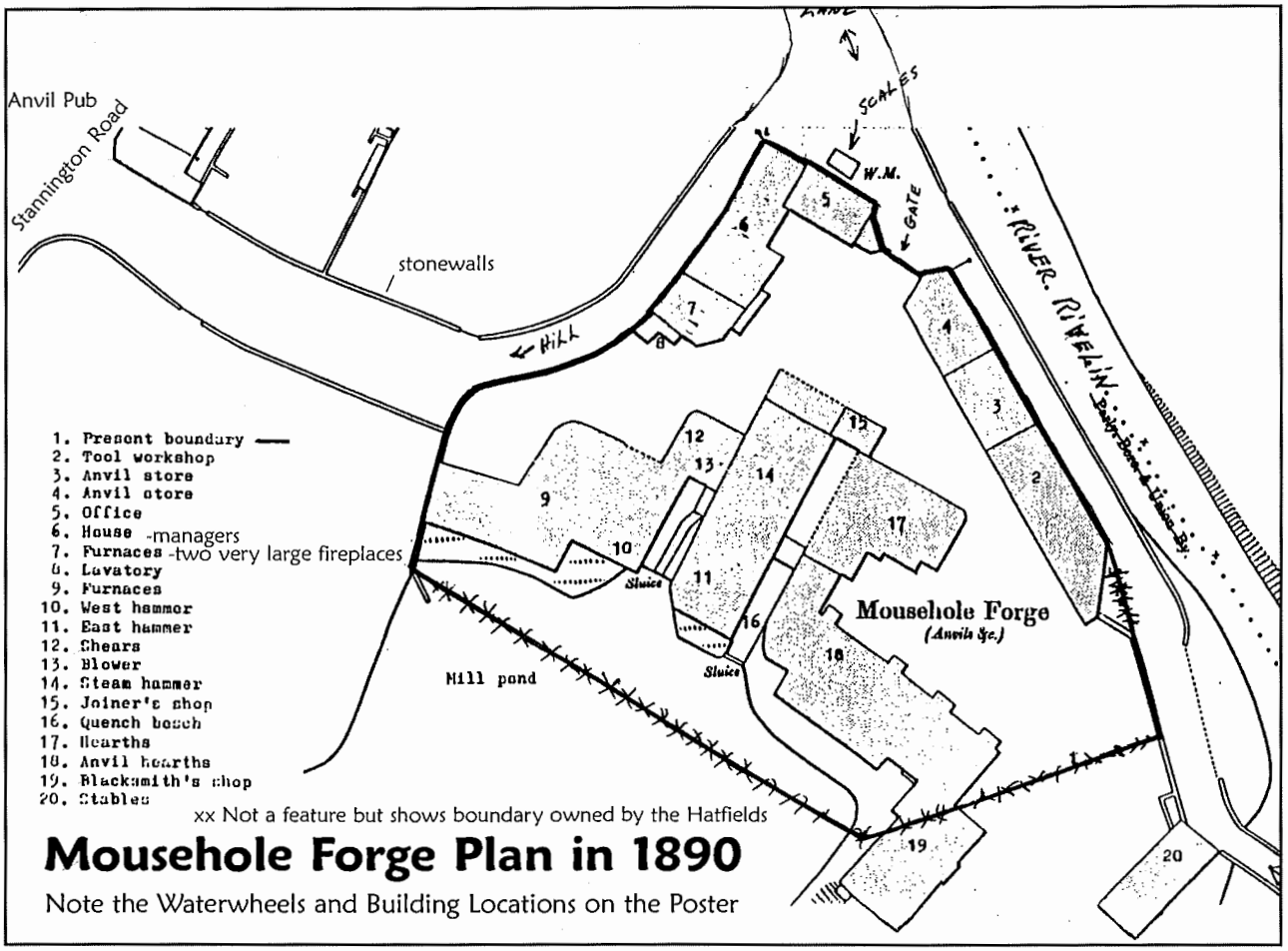
**159 lb. Mousehole Anvil**

As soon as we looked ahead the lane widened and we could see a stone wall with two large shuttered windows in it directly in front of us. To the right and left of this wall can be seen roofed buildings that make up part of a stone wall which continues to right and left angles. Just to the left of the shuttered window wall is a recessed double iron gate, the opening being about ten-feet wide. In the middle where the gates join is a cast iron plaque about ten inches in diameter with the words "Mousehole Forge" cast in relief on it. With the gate open we drive into the courtyard of the Mousehole Forge. On our right is the manager's house. The Armitages, who owned the forge, lived about one-quarter of a mile away in a very large stone house. On an angle to our left is the warehouse. The stone wall continues from both buildings until it reaches the pond dam, thereby completely enclosing the forge site. The ends of the one-story warehouse protrude beyond the wall as seen in the drawing. There are doors on both ends allowing material to come in and go out of the warehouse without coming within the courtyard. The wall is about ten-feet high and at least two-feet thick. Directly in front of the courtyard can be seen what remains of the forge proper. There are nature trails outside on both sides of the walls. The trail on the right passes the outside of the house, goes up the hill to the Stannington Road. Just across the road is the "Anvil Pub." This Pub undoubtedly supplied the needs of the working men at the forge. To the left outside of the warehouse is a road, now a trail, as a stone column is embedded in the middle just beyond the Mousehole gate. The bank of the river is about twelve to fourteen feet from the forge wall and warehouse. The whole Rivelin Valley is now a nature preserve and as one walks the trail up or down the river the ruins of many of the old mills can still be seen.

The whole area inside of the walls of the Mousehole Forge probably takes up half an acre. It is almost hard to believe so much industry took place in such a small space, producing the world-famous Mousehole anvil. Believe it or not, there are only six known Mousehole anvils in England, yet thousands are in North America. The Hatfields managed to get one which is on display at the forge. With that we take our leave of Mousehole.




**Anvil Irony: An 1890 Mousehole Poster--mouse-chewed!**

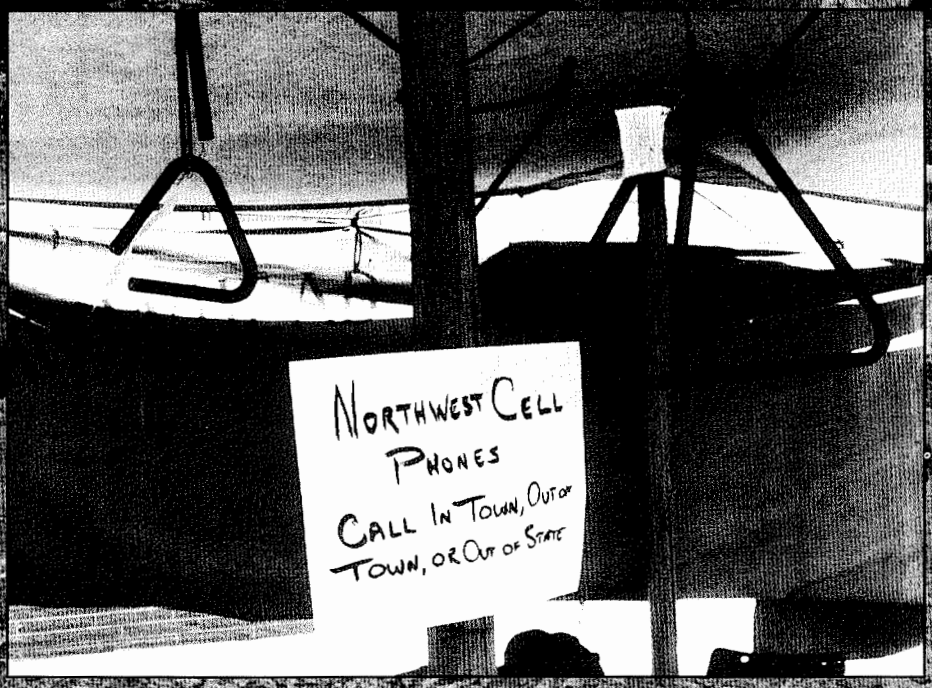



## Mousehole Forge Plan in 1890

Note the Waterwheels and Building Locations on the Poster

# Pawnee

## Mountain Man Y2K Compliant!




PAWNEE is an itinerant blacksmith from Blanchard, Idaho. I kept running into him over the summer. First, along the roadside in Newport, Washington in front of Oldtown Hardware. Last, at the Spokane Interstate Fair. His Arrowhead Products banner started flying at the Northport Barter Fair, hard on the Canadian Border, in early April, and will end in March at the Enumclaw Mountain Man Show. In between Pawnee logs an incredible 51 appearances at Fairs, "Days", and events such as the Hog Heaven Rondy, the Bullfrog Rondy, the Chumstick Rondy and the Spring Rattlesnake Rondy in Tonasket. However, he did take a week off in July to celebrate his fathers 80th birthday.

# Pawnee

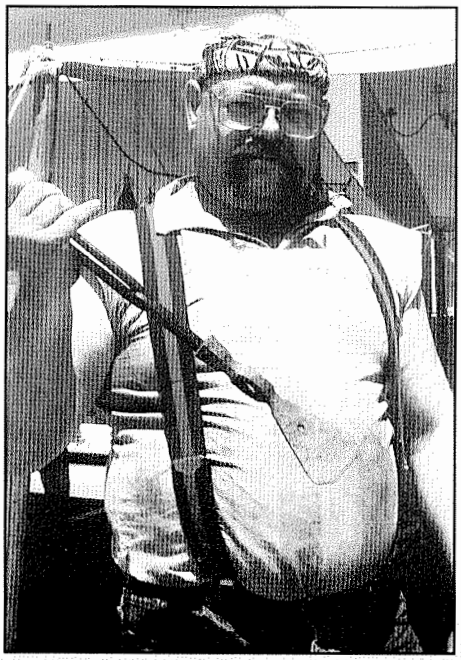
PAWNEE constantly has to explain his name. The explanation is simple: Pawnee. That's it. Just one word. No boring first name or last name. Which makes him the only person I've ever known with only *one* name.

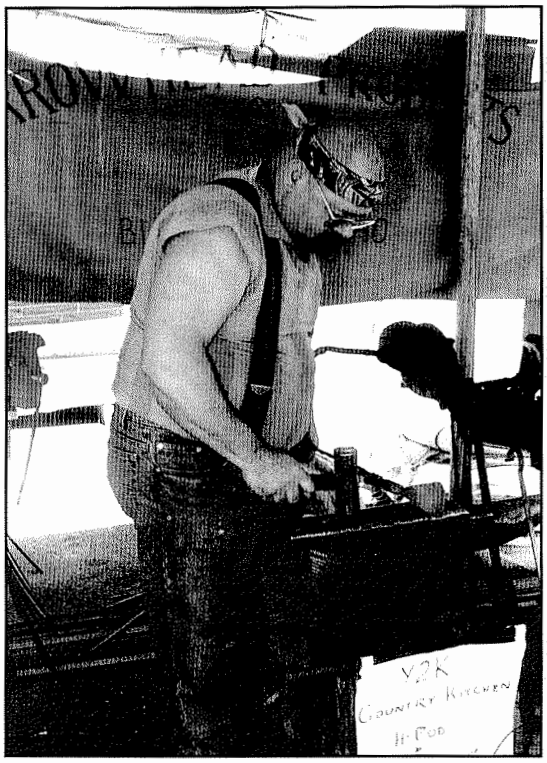
Pawnee has been on the cutting edge of using iron in Y2K-compliant technology. His three models of Northwest Cell Phones allow calls either "In Town," "Out of Town," or "Out of State." When I ran into Pawnee in Newport, Washington, he demonstrated his "Out of State" cell and it was perfectly audible in Oldtown, Idaho, some fifty feet away! Likewise, his Y2K Country Kitchen stoves are guaranteed to function even after the National Power Grid goes into computer chip melt-down!

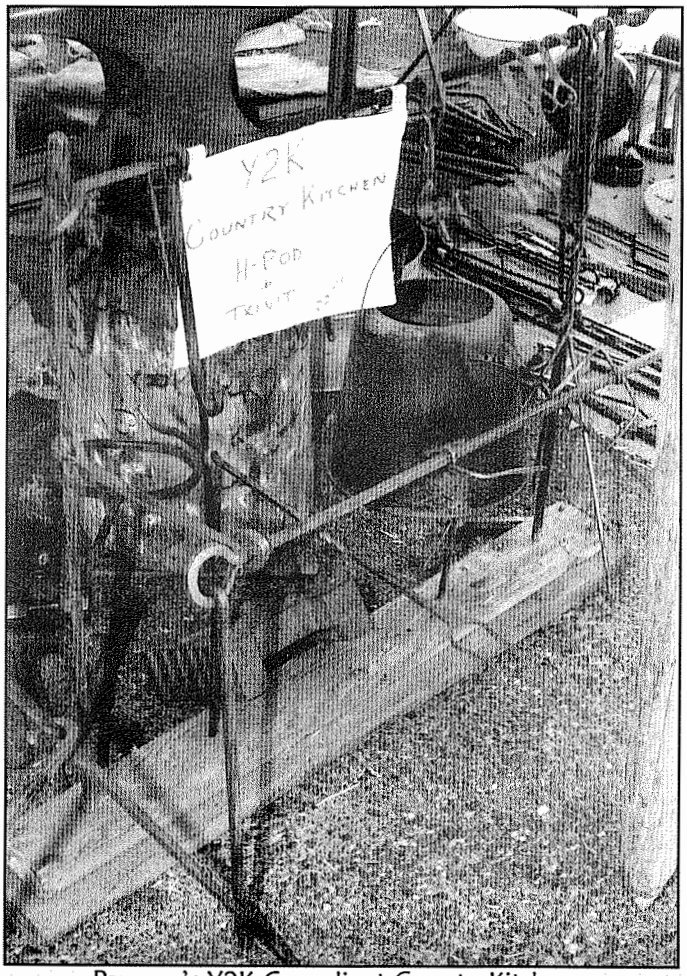
The cell phones also come with complete instructions: "just pick up the ringer and call your kids, friends, public officials, or anyone. This cell phone has a one-time fee for all your calls and it's also your Y2K cell phone. If the power is out or no one is home your cell phone always works."

Pawnee produces a full range of iron forged products which he trades at all his stops. In the Winter months he keeps busy in Blanchard, close to Coeur d'Alene, rebuilding his stock and doing custom work.

Pawnee is sharing his plans for a Pipe Tomahawk made from a gun barrel . . . Ed.



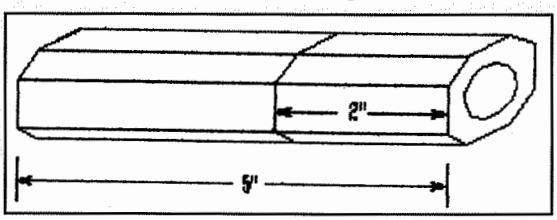


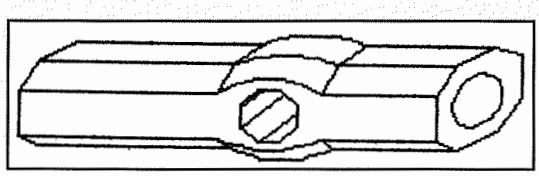

Pawnee's Y2K Compliant County Kitchen

# Pipe Tomahawk from Gun Barrel by Pawnee

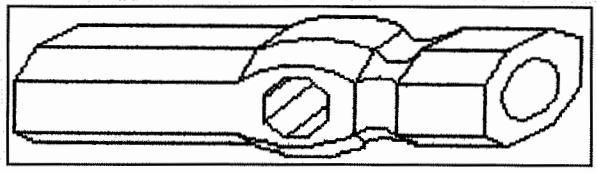
To make a pipe tomahawk from a gun barrel is not the first project a to-be blacksmith should start with. With practice and the right tools it's no problem. To start you'll need a five-inch piece of gun barrel thats an 1 1/8", across the flats, and .50 caliber or bigger. The tools needed are 1 lb., 2 lb. and 4 lb. hammers, round-hole tapered punch with a 3/4" octagon handle, 5/8" diameter spring fuller and a good hot fire.



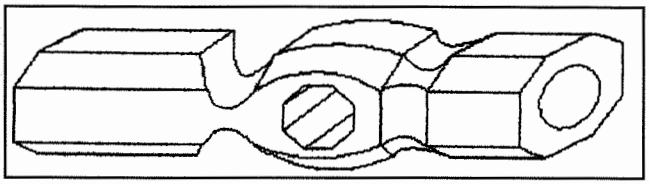

To start, put a mark 2" from one end of the barrel and heat it up to a orange-yellow heat. When working the barrel always heat to the orange-yellow and work the iron till it goes to red and reheat. You have to make a hole for the pipe stem or tomahawk handle. Pull the barrel out and punch a hole in one side, using the 4 lb. hammer. If the color gets to a red put it back in the fire and reheat to orange-yellow. Take it out, turn the barrel to the opposite of the hole and start punching a hole from that side to match the hole on the other side. Now you punch-hammer the punch through the barrel, over the hardy hole. Do one side and turn it over, that way it keeps the barrel straight. It takes about 6 heats to expand the hole out. You keep doing this till the round hole is shaped into an octagonal hole, formed from the handle of the punch. All the time you're working on the barrel keep it straight and even. When the hole is finished it's time for the pipe bowl.



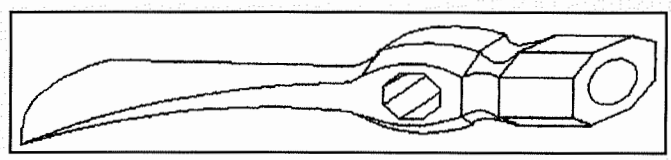
The bowl is formed by indenting the barrel above the handle hole in the short part of the barrel. Using the 5/8" spring-fuller and the barrel at an orange-yellow heat, place the barrel in the fuller and, using the 4 lb. hammer, hit the top rod of the fuller. Then, turn the barrel 1/4 turn and hit it again, do this until the desired indentation is met, reheat when needed during this operation. After the indentation on the four sides are done you turn at a 45 to each side in the spring-fuller and hit it until all 8 sides are even, octagonal indentation. The hard parts of forming the pipe tomahawk are done. Now how to form the blade.



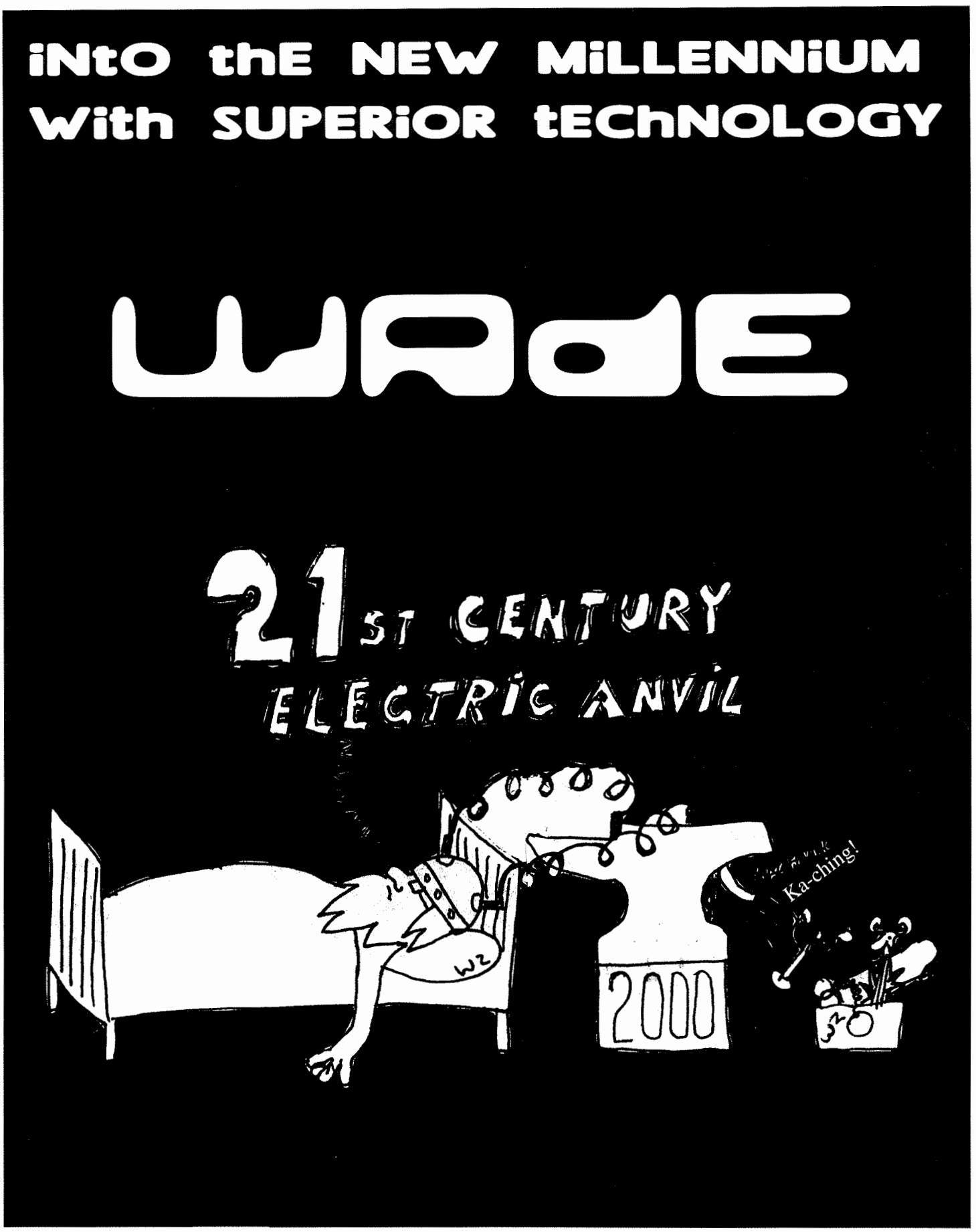
Keep the spring-fuller in the hardy hole because you have to indent the barrel below the handle hole. You'll make the indentation on the two sides that are parallel to the hole. On smaller diameter barrels a thickness of 1/4" will do, on larger barrels 3/8" thickness is good.



Now forge out the blade of the pipe tomahawk. The blade can be whatever style you care to make. The more common style and traditional blade is swept back with about a 2 1/2" wide blade. The rest is up to you. With filing, the pipe hawk head can be as plain or fancy as you want. Take care and have fun. ***Pawnee.***



Pawnee POB 64, Blanchard, Idaho 83804
pawneel@hotmail.com


iNtO thE NEW MiLLENNiUM
With SUPERiOR tEChNOLOGY
WRdE
21ST CENTURY
ELECTRIC ANVIL
Ka-ching!
2000

# thE PERfECt NEW YEARS EVE MiLLENNiUM 2000 dRiNk-- CANAdiAN fLOAt

# WRdE

## 'SMiTH-iN-THE-KiTCHEN


CAN. FLOAT

Take about 3 oz. of fine Canadian Whiskey, Crown Royal or Gibson's Finest. Get yourself a small dish of a high quality chocolate ice cream. Pour the whiskey over the ice cream and maybe stir *just a little* and wait a minute. As the ice cream gives off its cold while trying to melt it supercools the whiskey. Now a fine Canadian Whiskey Supercool is something to be experienced. The creamy chocolate ice cream is a fine addition!

# Peter Roff Colonial Williamsburg Annual Portland Workshop

## By Hardie Swage Roving Reporter

**Peter Does Portland: by Hardie Swage**

The first two weeks in November saw the annual return of Peter Ross to the Pacific Northwest to teach and recreate. The master of the blacksmith shop at Colonial Williamsburg, Virginia, he spends his workdays in one of the largest living history museums in North America. Peter is considered one of the top practitioners of American colonial period items and methodology in the world.

Starting out at Mt. Hood Community College with the N.W.B.A. three-day workshop on Box Joint Tools, Peter took his class of twelve through the process of forging the two parts of these interesting tools. The pre-class assignment was tooling and the students came with top and bottom fullers and other items as instructed. These tools were finished in class and the forging began. The inner and outer parts of the joint are forged along with the jaws and handles. The outer joint is spread out and the other part inserted. The pair is then forged back into a snug fit unit. Lastly, the pivot pin is drilled or punched and secured. The telling is much easier than the doing. The class went well and all the students seemed pleased with the results. Many made more than a single pair during the three-day class. The objective of the class was new skills and knowledge rather than a specific item and everyone left with plenty of both. The college was a wonderful host and gave us a large room in the industrial arts department.

One of the techniques Peter teaches is the use of tong-held punches and chisels. Special tongs (see photo) hold short tools that impart most of the hammer's blow into the work. These tools can be square, round, or multi-sided in cross-section.

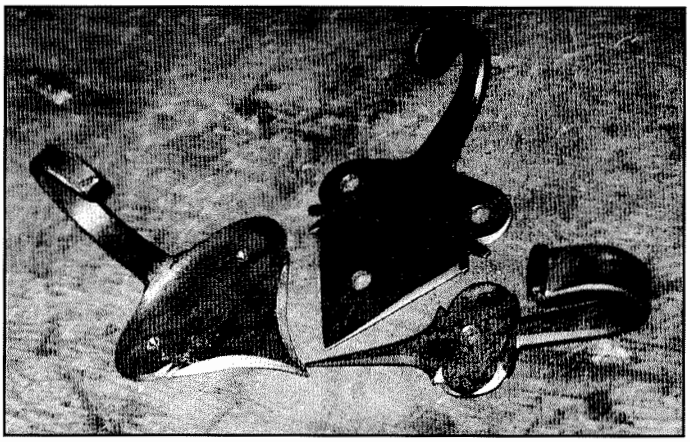
On the Monday following class Peter made an informal presentation to a metals class at the Oregon College of Arts and Crafts and then left for Richland, Washington for three days filled with visits to car and tool collectors. He even had a tour of a powered metal plant that manufactured complex parts for a variety of customers. While in the Tri-Cities he helped tune-up the post vise for his hosts, Denny & Linda Kehl. Returning to our town with a few new treasures, he did three days of lecture/demos at Fort Vancouver. Saturday afternoon was a hands-on class lasting well into the evening. The host organization was the Fort Blacksmith Guild and

they have opened these sessions, on a limited basis, to the blacksmith community. In the classic setting of coal forges fanned by bellows, Peter took on the duplication of several items from the extensive artifact collection housed there. Making an item for the first time is a lot of experimentation and "trial and error" work and it was very informative to see the process take place. Anyone interested in historic iron is encouraged to visit this site and look at the collection. Applications are available at the Fort and viewing of the actual collection items is by appointment.

**Tuning up a post vise: The observations of Peter Ross by Hardie Swage**

Too often the post vise is ignored, so loose sloppy action or poorly aligned jaws are lived with and remain uncorrected.

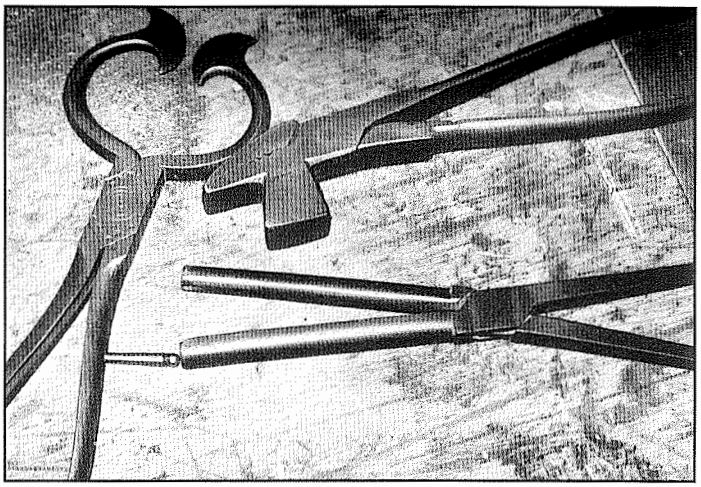
The most common problem is that the hinge bolt has been replaced with a smaller one thus making one jaw lower. This is the first item you check and may require a replacement. Tighten the nut as tight as it will go and back off about a 1/4 turn to allow the joint to work. If things are still too loose, heat up the joint sides and bring them closer together using the nut/bolt with the leg in place. The final adjustment is to make sure the jaws line up (left to right) when closed. Heat the movable leg above the joint area and bend to make the match. This requires the vise to be re-assembled when a section of this leg is very hot, do it carefully. Adjustment was made by applying pressure on the jaw area using muscle



and body weight rather than a wrench. The finished tune-up should produce a vise that is tight and true and a pleasure to work. Peter has two post vises in his home shop. One about elbow height for file type work and a second mounted much lower to make the use of a hammer easy. Extra support on the bench edge can add stability to the vise, keeping it from moving side to side. Hopefully this is not your only vise.

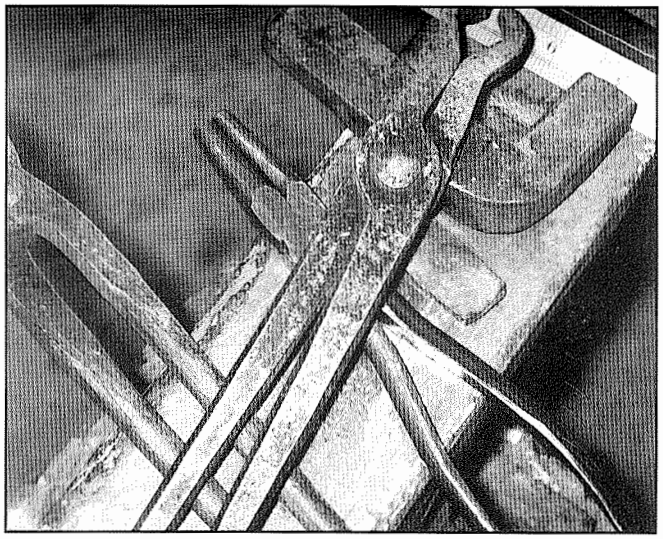
**Wall hooks:**

Peter made some wall hooks demonstrating a simple technique. The hooks were "thank you" gifts for staff at Mt. Hood Community College. He isolates a mass on the end of a 1/4" X 3/4" bar and forges this into a "set up" to determine the final shape. This is very much like the technique used on door latch cusps, spoons, and spatulas. The set up is peened flat, the hook formed and bent and some decorative filing finished off the piece. These hooks are attached to the wall with hand made nails.



Sugar nipperf, cobblerf tool, hair curling iron

*Hardie's technical advisor is Ike Bay!*



# Gene Chapman ~ Past the Milepost ~

The former Editor of the Hot Iron News (and Spiritual advisor to Smedley Soapstone) took time out from his forge and the Gamble Bay oyster beds to share his advice for the upcoming Century . . .

Year 2000 marks the beginning of the next Millennium. Wonder how concerned folks in Year 999 were with Millennium 1000. My guess is their main interest was having groceries on the table.

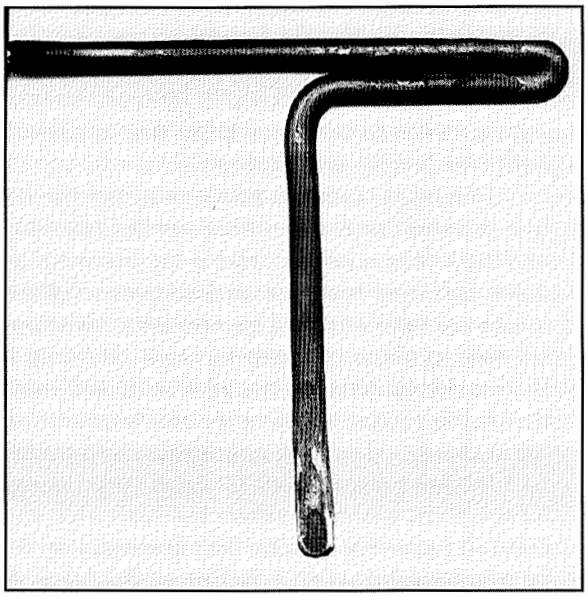
With the news media making news for themselves with the Y2K Thing, global economies, electronic gadgets, computers galore, the age of car and truck mortgages, sometimes it takes special effort to tune all that out and just go light the forge, pound iron, make tooling, try out new techniques, and have fun blacksmithing. In the N.W.B.A., and ABANA, there are some super-talented heavy hitters who really inspire the rest of us wannabe blacksmiths. These folks are fun to be with, watch, talk to, and glean information and techniques from. Through their workshops, demos, articles and advice we learn more about the blacksmithing craft, especially the use of hand work.

*Hammer In Hand*, the theme of the N.W.B.A. Twentieth Anniversary, emphasizing hand-forging, says a lot. Handwork is the basis for most smithing operations whether it be hobby or full-time iron pounding.

In 1998, I began in earnest to produce a line of mostly small forged products (many are trinkets) that are all forged by hand. The count is about 80 now. Each product is market-tested in several outlets where I consign my work. Some forged product designs are modified from time to time to be more attractive, usable or cost effective. This *Hammer In Hand* work has made me a better smith and I enjoy the craft much more today than a year ago. My goal is to build the product line to 100 then sit back and examine the whole process. Maybe it will all end up in a booklet someday, who knows? The bottom line, it really has been fun!

Usually, when I give too much advice, it's a matter of shop safety, groan, groan. But the Editor wanted something about Year 2000 advice to smiths--so here goes . . .

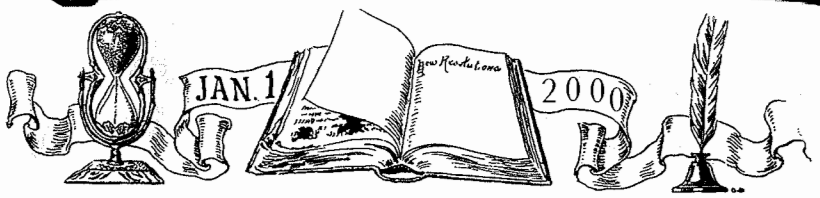
Make the craft fun, do something every day, even if its only a short time. Forge, plan, invent, new tooling, rearrange, clean up, make something for your spouse, house, or shop. It's rewarding! Have a Great Hot Iron Year!



***Pry Apart Thingy: This is a version of a screwdriver with more purchase. It is easily made from 1/2" mild steel. It is used to open and equalize hot iron forms. The business end is filed smooth to minimize marring hot iron.***

### *Art in the Millennium . . .*

*I Sandro painted this picture at the end of the year 1500 in the troubles of Italy in the half time after the time according to the eleventh chapter of Saint John in the second woe of the Apocalypse in the loosing of the devil for three years. Then he will be chained in the twelth chapter and we shall see him trodden down as in this picture.* (Inscription at top of Botticelli's painting of the Nativity, Florence)




**The Further Absolutely True Unexpurgated and Unabridged (exciting) Adventures of Smedly Soapstone . . . or**

# Smedley's New Century!!!

November 11, 1999. Smedley Soapstone nearly gets electrocuted changing light bulb in the shop privy. Bare feet and wet seat didn't help any. One leg falls into glory hole. Bad scene. Yuk. At that enlightened moment, Smed sees the *Future* real clear: No more electrics, plastic, TV or computers. Back to Basics!

November 12, 1999. Smed begins the move to an old fishing shack at Swillard's Slough, sets up a lean-to shop with anvil, hammer, tongs, bellows, forge and a big heap of scrap iron. He caches a year's worth of beans, flour, grits, salt, sugar--all the vittles needed for Smed, just turned vegetarian.

***NEW YEARS EVE*** The Skunk Works Iron Company gang give Smedley a real good "Back-To-Basics"/Year 2000 Bash, one he'll never remember!

***Smedley's Year 2000 Journal***

January 1. In my new home at Swillard's Slough, breakfasted on grits, then slept all day. January 2. Gather Fir bark for forge. Have run-in with bear. Begin making wild berry hard cider. January 3. Forge trinkets and oyster knives for Gamble Bay Craft Fair, find bear trap in shack. January 4. Gather more bark. Set bear trap in woods. January 5. More oyster knives, tested on oysters at the Slough. Hate oysters. Fed them to gulls. January 6. Go barking. Step in bear trap. January 7. Manage to get trap off foot. Hard cider helps the pain. Throw trap in Slough.

January 8. Celebrate first week at the Slough. More cider. January 9. Sicker than a dog. Soak foot all day. Read Boy Scout Manual. January 10. Notice bear tracks around shack. Forge more goodies. January 11. Market Day. Limp to town. Barter at Crafts Fair. Spend night at Iron Works. January 12. Bear trouble overnight. Bear eats beans, flour, sugar and poops on grits. January 13. Make crutch. Go to town. Barter for food. January 14. Tote more bark.

January 15. Forge trinkets and knives. January 16. Bellows problem, mice eating leather, chipmunks too. Fix bellows. January 17. Haul bark all day. January 18. Foot getting better, forge all day. January 19. Bark, bark, bark. January 20. Raccoons getting troublesome, pooping in bark. Forge awhile. Phew! Forge stinks! Shut down! January 21. Same dream every night--owning a coal mine. Off barking all day.

January 22. Notice talk to self a lot. Repair bellows again. Mountain Beaver pooping in grits too. January 23. Market Day. Barter at Fair. Go to Skunk Works, spend night again. January 24. Uh-oh, raccoon and bear tracks. Cache empty. More poop on grits. Oyster shooters for dinner. January 25. Town again. Barter for gun and vittles. Town folk look at me funny. January 27. Forge awhile, then lose interest. Enjoy sitting in dark room. Suspect shack may be cursed. January 28. Walking farther and farther for bark now-a-days. Cache broken into, grits and poop. No supper. January 29. Wake up grinning. Go hunting. January 30. Get everything ready for the move. ***End of Journal!***

January 31. Smed's back at Skunk Works. The crew admire his bear coat and coonskin hat and grin ear-to-ear. "Boys, electricity is our friend! Turn on the stove, we gonna eat bear and watch football!," says Smed. "Smed, football season done!" "Shucks, tell me about Superbowl," says Smed, "It were hell out there!"

# Bob Race ~
# The Anvil's Farthest Side ~

## Bob relates his experiences at Fort Vancouver . . . and with Longfellow

During a group discussion of visitors' remarks, I pondered the variety that can come from our general public. Some are very interesting but at the same time, quite boring, as they are unknowingly quite repetitious. Subconsciously, I find myself saying, "How many times have I gone through this dream?" One day I even entertained the idea of recording how many times I have heard, "My grandfather was a blacksmith . . . " but then wondered what would I do with such useless data. Should a person reply, "Well! So was my grandmother. So what?" And how many times have you heard, "I used to sit and crank the blower on my father's forge." I guess it would be useless to make a record of the hot horseshoe, or about too many irons in the fire, or "Do you ever burn yourself?" - "Heck, kid, these aren't all liver spots on the back of my hand."

I've come to the conclusion that the best kids who come through the Fort are under twelve, and over thirty-five. The younger group is just at the age of being inquisitive, and the older ones seem to have a purpose for visiting the Fort in the first place. Those in between seem to be bored with life, already know more than anyone else, or are so preoccupied with the opposite sex that their minds border on obsession of such.

My tenth year at the Fort was completed in November of '99. It had its ups and downs. However, I still go because I meet some very interesting people from all walks of life, every state in the union, and a myriad of countries. Many visitors stay and tell me all about themselves, their ancestors, what they like to read, the music they spend time listening to, or about living history museums from their country. Some even show a general interest in the history of the Hudsons Bay Company and why it was located in Vancouver. Believe it or not, some even show an interest in blacksmithing! I often hear how it is a dying art and that there are not many blacksmiths around to pass down the secrets of the old ways.

All of this thinking brought me back to last month, while looking at one of Norm Larson's book markers which displays Longfellow's "The Village Blacksmith," and remembering how many times older people come up to me and recite "Under a spreading chestnut tree . . . " I was exposed to this piece of literature in grade school (as were many), and had to memorize the first stanza. Now, for the first time, I read the lines trying to digest the reason for Longfellow's dedication. It is more than obvious that he had more than just respect for this honest, hard-working man, and it gives the definite impression that there was a deep friendship with blacksmith, Dexter Pratt, who had his smithy near Longfellow's home in Cambridge, Massachusetts.

All of these feelings are outlined in the first seven stanzas where Longfellow forged his poem into shape and prepared it for the final weld in the last six lines. In the first of those lines, what greater honor can a person give than to say, *"Thanks, thanks to thee, my worthy friend, For the lesson thou has taught!"* The remaining lines are just icing on the cake, but to deliver a double praise of gratitude--not just thanks, but thanks to THEE. It is to you, and you alone, that I am grateful for this life lesson. And he speaks of his WORTHY friend, not noble or great, but a comrade of equal rank who shares the unanimity of a close friend's journey. I just wonder how many people, if asked, would be able to recite that line or even try to understand its significance to the whole poem as much as they do the first line . . . just something to think about.

*Great is the art of beginning, but greater is the art of ending.*

*--Henry Wadsworth Longfellow*

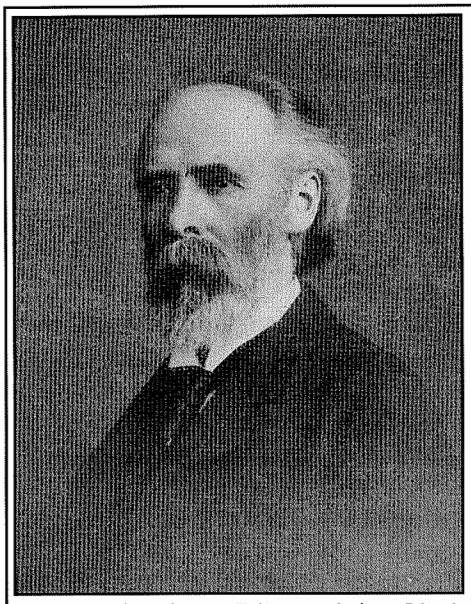

This superb calendar free to every reader of THE BLACKSMITH AND WHEELWRIGHT who will write to the Standard Varnish Works, 29 Broadway, New York.

From *The Blacksmith and Wheelwright* January 1900

HOT IRON NEWS

# Forging Index

*Winter 1993 to Winter 1999*



M. T. Richardson, Editor of the *Blacksmith and Wheelwright*, 1900

*Editor of The Blacksmith and Wheelwright.*
I see you want addresses of those who were subscribers in 1880. I am one. I am located here in Oran, Scott County, Mo. I would like to see the picture of the editor in your Souvenir issue, and I expect it would please many readers of THE BLACKSMITH AND WHEELWRIGHT, as we have a warm feeling for him. Wishing you continued prosperity,
I am respectfully, J. O. HESS.
ORAN, Mo., December 13, 1899.

In response to a number of requests of the same tenor as the above, a portrait of the Editor of THE BLACKSMITH AND WHEELWRIGHT is printed on this page.

***WANTED!*** Looking for a way to help N.W.B.A. prosper? Willing to devote a little time to that end? We are looking for a Club Treasurer. Accounting skills a plus, but we have an accountant that will help you get started if you want. Quicken or hard-file okay. Great perks, junkets to exotic lands (ever wonder why Kent Rudisill has a perpetual tan?) Please call Don Kemper at 306 887-3903.

***Darryl Nelson Workshop***
Want to start your blacksmithing skills off right? Or polish them up and add some new skills too? Darryl will teach a Basic Novice blacksmithing class in the Spring, 2000 at Kempers shop.

***Uri Hofi Workshop***
is a possibility for early May, 2000. This could be a week-long workshop if interest dictates. Contact Don Kemper to get on the mailing lists for the above workshops.


***COON HOLLOW FORGE***
***Kalispel, Montana***
**Hammer-Ins** will be held Friday nights during workshop weekends. Good time to see what happens at a workshop. Time 6-10 p.m.
**Workshops:** A structured learning environment. Hands-on, low pupil/teacher ratio. Take home your projects. $200. Three days, Friday through Sunday. 50% deposit reserves spot, balance due at start of class. Refunds if cancelled two weeks prior; later if your spot can be filled.
***January 28-30, Blacksmithing Basic I by Dan'l Moore.*** Drawing, upsetting, spreading, punching, chisels, punches, tongs, pokers. Good for those with little or no experience.
***February 25-29, Blacksmithing Basics II by Dan'l Moore.*** A progression from BBI, tongs, joinery, heat treating, layout problem solving, leaves, scrolls, etc. Bring questions.
***March 24-26, Forging Fundamentals for Women by Laura Goemaat.***
Laura works at 47 Productions in Seattle, making furniture and interior fixtures. She has agreed to teach a fundamentals class for women who may be intimidated by forging with lots of big burly guys/spouses. Will touch on design and basics as needed.
***April 21-23, Forging Animal Heads by Darryl Nelson.*** Simply the best. Want to learn from the master, now's the chance. Maybe he'll do an Easter Bunny. Sorry about the dates but its the only time we can do it. Usually covers dragons, rams, steers and Darryl's famous bear heads, plus lots of other goodies.
***For More Information, contact Dan'l Moore at Coon Hollow Forge, POB 182, Kila, Montana 59920 406 257-IRON***

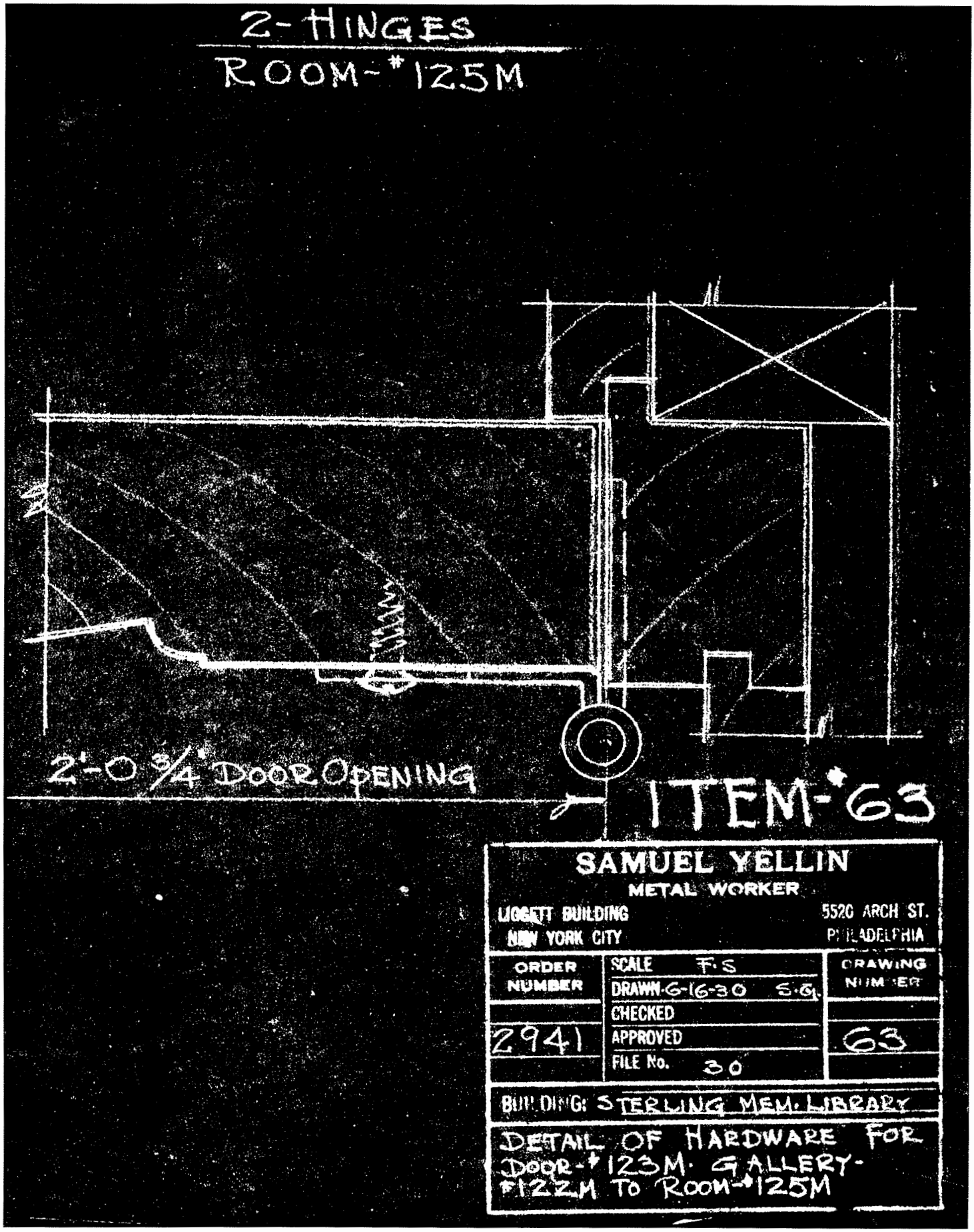
***2000 Calendar*** by Gil Fahrenwald. A must for every blacksmith. Only Twelve Bucks and really great pictures! Forget the calendar, the pictures are worth the 12! Call Gil at: 360 754-9697. E: anvilman@orcalink.com or POB 2323, Olympia, WA 98507.

***DEADLINE FOR SPRING ISSUE is February 15.*** Tell us about your Y2K disaster! Hot Tips. Make your New Years Millenium Resolution now to contribute *something!* Call *us* before we call YOU!

***Leaving Mukilteo and Moving to Ritzville?*** Send Al Karg your address changes and any other mailing list info. See Page 3 for address.

***ABANA Conference in Flagstaff, Arizona July 12-16, 2000.***

***Spring Conference, May 5-7, at Oakland, Oregon.***
45 Minutes south of Eugene, at Alan Flashing's Flashing Forge. Demos by Paul and Hiner Zimmerman, Master Smiths from Plietzhausen, Deutschland.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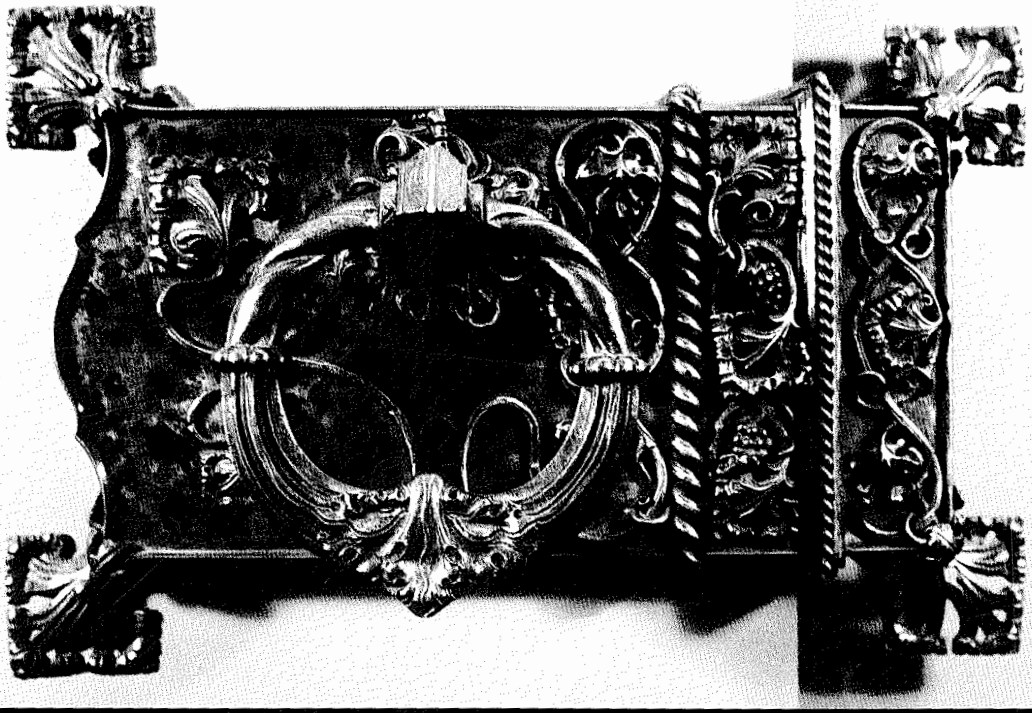
BUILDING STERLING MEM. LIBRARY
DETAIL OF HARDWARE FOR DOOR-#123M. GALLERY-#122M TO ROOM-#125M



Samuel Yellin
Iron Lock and Keeper 1920

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