

THE HISTORICAL TIMES

NEWSLETTER OF THE GRANVILLE, OHIO, HISTORICAL SOCIETY

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THE GRANVILLE FURNACE

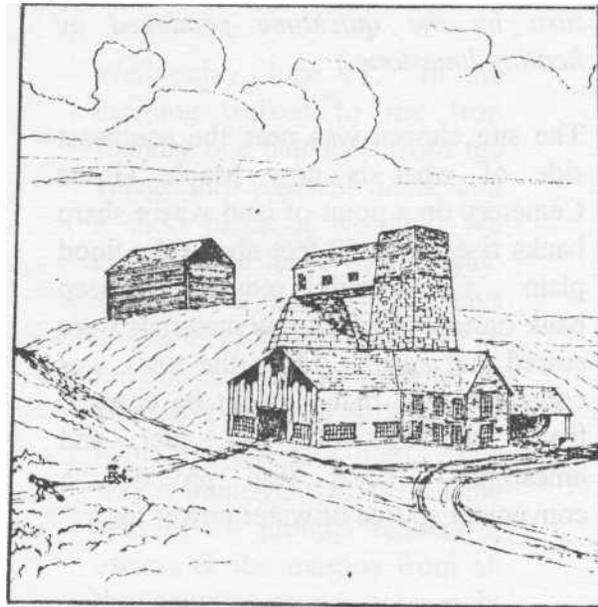
For all our talk during the 1980's and 1990's about "unleashing the entrepreneurial spirit," it is difficult for us to realize how that spirit permeated Granville in the 19th century, and how it worked out in local enterprises. William Utter, in *Granville: The Story of an Ohio Village* describes some of the businesses which formed, and went under, in rapid succession. We must think of these efforts in the context of the nation and state which saw the Ohio Canal, and its Granville feeder, being built with great excitement and effort in the 1820's, and, its demise only a decade later.

Our forbears were caught up in the prospect of America where ideas were put to the test immediately, and where economic failure led mostly to - other ideas. Granville was part of these frontier experiments. Beside the Canal, one need only look at Utter's description of banks, manufactories, spas, and educational institutions, many of which came and went, costing their proponents and supporters dearly, but not usually breaking the spirits of the individuals who were their supporters and advocates.

Earlier editions of *this publication* have described significant local enterprises that were influential in the life of the

community; some survive in different guise.

- 1) "The Deep Cut" v.7, no.2, Spring 1994
- 2) "Granville Institute of Hydropathy" v.8, no.1, Winter 1994
- 3) "The Newark-Granville Interurban" v.5, no.1, Winter 1991
- 4) "Doane Academy and its Predecessors" v.7, no.4, Fall 1993
- 5) "The Granville Times" v.9, no.4, Fall 1995



The Granville Furnace

The Furnace

The Granville Furnace was one of these useful, short-lived, and ultimately failed, enterprises. It was one of two iron-producing manufactories in Licking County during the first half of the 19th century. It ceased operation in 1838.

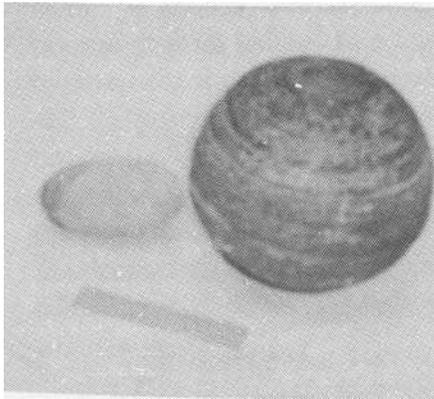
The man most responsible for planning the furnace was Jeremiah R. Munson, veteran of the War of 1812 and a local business leader. Returning from the war, Munson soon learned that deposits of iron ore and limestone in the immediate Granville area could provide the essentials for casting iron. He was cautious and took samples to Dillon's Furnace near Zanesville for analysis. With an encouraging report, Munson and his brother Augustine began planning a furnace to produce metallic iron from which to cast utilitarian utensils. (*Molten iron metal is produced when iron ore, charcoal, and limestone are together heated to a high temperature, commonly called roasting; the charcoal/carbon reacts with iron oxide to produce iron and carbon dioxide, the latter trapped in turn by the quicklime produced by heating limestone.*)

The site chosen was near the southeast side of what is now Maple Grove Cemetery on a point of land where sharp banks rise about 50 feet above the flood plain. Construction required a steep bank on top of which raw materials were stored and against which the stack was constructed so that it might be charged from the top with ore, fuel, and limestone. Clear Run provided a convenient source of water power for a

water wheel which was required to actuate furnace bellows in order to get the required temperature in the furnace. A dam was constructed north of present Newark-Granville Road for there to be sufficient fall in the sluice to carry the water to the top of the water wheel.

Raw Materials

Wood for making charcoal was abundant in the area. As late as 1890 an account described trees in the countryside around Granville as "of a density seldom found in the new country (the far west) today." Partially burning wood at the cutting site to produce charcoal significantly reduced the bulk of the fuel material to be moved, although it also made it awkward to haul to the furnace; charcoal is fragile and tends to break into small fragments and/or dust. Limestone, too, was abundant in the dolomitic remnants of the local rocks and soils. The Granville area represents a mixed geologic site of base rock and glacial remnants. Iron ore in the area was likely part of the local glacial till and was of unusual consistency, some in "ball-like chunks of one inch to ten feet in diameter," a good description of *siderite*, a common iron carbonate ore. At the time, these formations led some to speculate fancifully that prehistoric folk had once smelted cannon balls here. Low levels of *bog* iron ore (also called *marsh* ore, *swamp* ore; soft, spongy, porous hydrous iron oxides) were also common deposits east of the Mississippi River in shallow waters, formed when traces of iron compounds in natural waters had been precipitated through neutralization over time by algal or bacterial metabolism.



Siderite Nodules

Courtesy of Denison University
Department of Geology and Geography

Iron!

The first "tapping" of iron from the Granville Furnace occurred 24 June 1816. People watched as the molten iron was channeled from the furnace into sand molds for pots, skillets, and kettles. The event, and the following celebration, were later recorded by Marvin Munson who had the description from his father Augustine. "I will boldly assert that no place or occasion ever saw a prouder set of men or a more lovely group of women" he wrote, expressing the exhilaration his father conveyed to him.

A foundry was also operated by the furnace managers to fabricate wrought iron ware (hooks, pins, angles, etc.) from the brittle cast iron. This part of the enterprise seems to have been less successful, likely because these smaller items could be brought from the east, and, because the operators had limited knowledge of how to incorporate small amount of carbon and silicate impurities to make the iron more malleable in order to form the shapes desired on the anvil.

Heyday of the Furnace

These difficulties aside, and despite the quick exhaustion of the financial panic of 1818, the establishment of other furnaces in the area (in Mary Ann Township, NE of Newark, for example), the Granville furnace was able to continue to operate until 1838. Ore from around the Licking County area was obtained using water transport with the development of the Ohio Canal system. Unfortunately no substantive records of production survive, although the Granville Historical Society Archives retain an incomplete ledger from the foundry.

The most descriptive account of the furnace known occurs in the diary of an unidentified young woman who visited Rev. Jacob Little and his wife in June 1834 (*see this publication v. 7, no.2, Spring 1993*).

Wednesday, June 11. In the morning walked to the Iron foundry one half mile from the village thro pleasant fields, and a short piece of woods. We climbed one fence by the way. The ore is heated 120 days before it reaches its height. The furnace is 9 feet in diameter at its base & one foot at the top. I think it is 36 feet high. The wall is immensely thick, but the heat of 10 months renders it useless & the masons from all the country round engage in repairing it for another blast.

Granville Foundry 1835

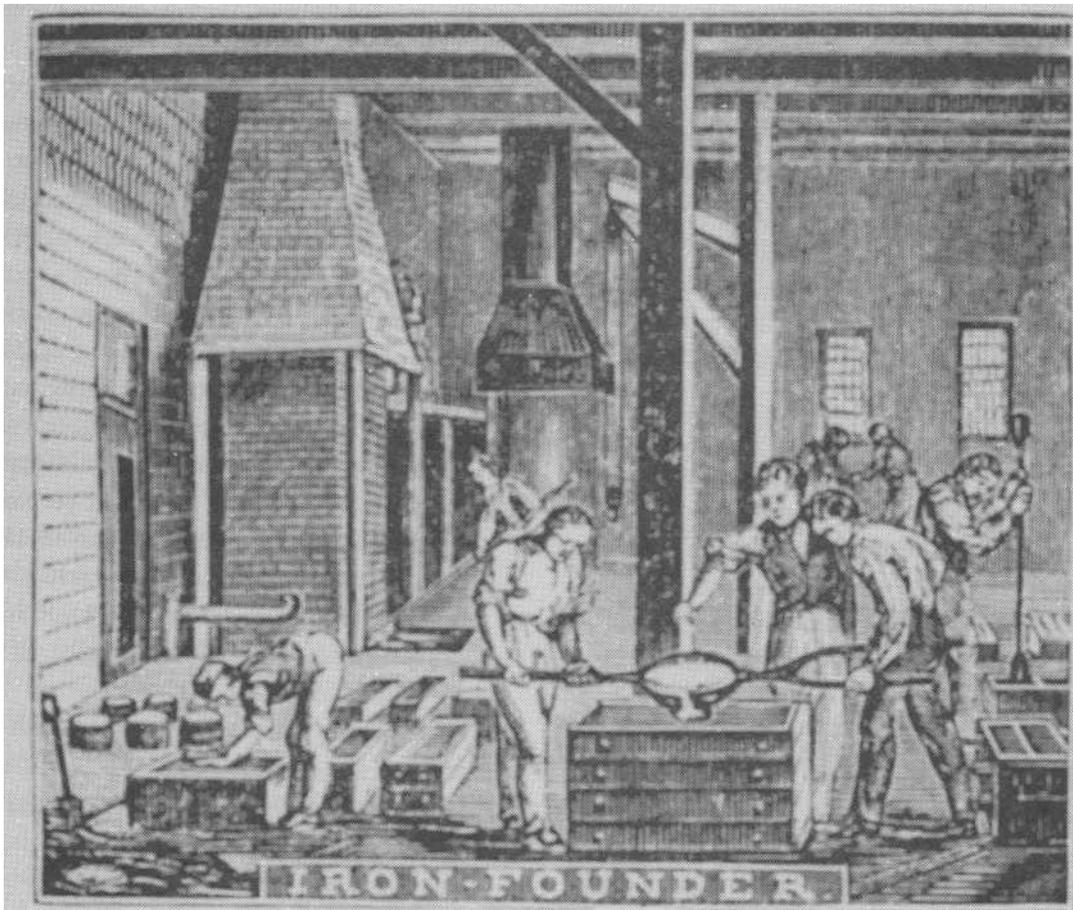
May 13	Sold to Dan Clark on a/cf 2 Sets Cultivator Castings w/125	2.50
	paid Castings for Cast	.38
	Paid James Armstrong for Chopping 8 Cord since settlement) Cash 125 order on Mary Reed & 125	
	Bought of Lester Case on a/cf. to be paid in Castings 37 1/2 Butt Lumber w/125	4 64
16	Bought of Munson & Fickett on a/cf to be paid in Castings 55 3/4 Sycamore fence boards Paid of Everett & Co on Consignment a/cf 1 Barrel Pork	10.00
	Sold to Daniel Conant on a/cf. 3 Sets Boxes 138-125 75	3.38
16	Sold to John Gaffica on a/cf 1 Set 1 horse Bone	.88
	Sold to Lewis Nichols on a/cf 13 Jan last and by error ch'd to J. Cook & 1 set slides	3.00
	Paid Lucius Ray on a/cf Cash	25
	Paid Lewis Swan on a/cf Cash	1 46
	Discounted with J. Cook & Co the following bills for Sheldon Swan 53.45 " Lucius Ray 10.14 " Lewis Swan 117.23 " Samuel Swan 4.04	
		184.86 = 184.86
17	Sold to Nathan Jacobs on a/cf & on 2 Sets Horse Power Castings \$58	34 32

by Geo. Wright

molds are made of wet sand. Patterns of iron or wood are put into the sand & drawn out again. Liquid fire is then poured in from ladles. In a few minutes, the framing is removed and the articles are taken out & brushed. There men who lade out the iron have the sleeve of the right arm wet. Dutch ovens & irons & teakettles are manufactured here. \$40,000 worth a year.

Bushnell (The History of Granville, Licking County Ohio, Columbus [1889]) notes that the products of the Granville

furnace were marketed across Ohio, from the Ohio River to the Great Lakes. In addition to cooking utensils, the Granville Furnace/Forge produced plows for some period, advertised in Columbus papers of the time, and in 1818 a cannon barrel was cast, used by Willard Warner's artillery brigade to mark the beginning of construction on the Ohio Canal at Licking Summit northeast of Buckeye Lake in 1825. (*see this publication, v.8, no.2, Spring 1994; v.5, no.3, Summer 1991*) The construction of a feeder canal from Licking Summit to Granville significantly enhanced the distribution ability of Granville Furnace products.



Decline of the Furnace

While the canal system helped the furnace convey its products more widely, the canal also brought more competition. Manufactured goods from the east began to arrive in quantity around 1830, spurred by decreased shipping costs and the demand for better quality goods than the Granville Furnace could produce. Crucial for both the furnace and the feeder canal to Granville appears to have been the meteorology of 1834. The spring/summer began with a terrible freeze that was followed by drought, the latter hinted at by the June 1834 diarist cited above. In late June a series of storms culminated in an extraordinary flood on July 1. The flood, 4 to 6 feet higher than any known before, put both the canal and the furnace out of operation for a time. The furnace working floor was inundated. The water wheel was washed out, stopping the bellows, leaving the furnace with a fully charged stack. Both the furnace and the canal were rebuilt but never fully recovered.

People

Jeremiah and Augustine Munson, seeing the potential for the Granville Furnace, saw to its construction and opening. They were financially involved in other local ventures, too; furniture, land, banking, and canal building, that taxed their resources. Jeremiah Munson was a leading promoter of the Granville Alexandrian Society, which had broad privileges in land transactions. He borrowed \$13,000 in 1818 from the bank the Society established with the Granville Furnace as security. Two years later the

Alexandrian Society was sued for breach of contract and all Munson's property was forfeit and put up for sheriff's sale. The 26 September 1822 Newark Advocate advertised

..one tract of land on which the Granville Furnace is erected containing 22 acres and 19 perches of land including furnace, tools, etc., together with all appurtenances thereto belonging.

The property was eventually purchased by L.D. Mowrer and Elias Fassett for \$900 in 1825. Meanwhile, in a troubled spirit not wholly related to these events, Jeremiah Munson died by suicide.

Mowrer and Fassett began operating the furnace again although Mowrer shortly sold his interest to Fassett, who ran the furnace until it stopped production in 1838. And, there were personal incidents other than Munson's suicide associated with the furnace; a workman was killed during the furnace's construction, another in making repairs to the water wheel soon after operation began. A furnace workman disappeared with one of Fassett's horses (a serious offense in that equine age), and in 1836 a furnace workman beat and nearly killed a man during the Granville Ohio Anti-Slavery Convention riot. Finally, in 1857 a group of Denison freshmen were engaged in high spirits and rough play around the furnace site when Ebenezer Bland was caught and crushed between the old water wheel and its wall; he was one of the first burials at the Denison hilltop cemetery site.

Risk

Risk, and benefit, were thought of in a very different way by 19th century Granville residents than in our own time. It is common for any economic venture in the late 20th century to be subject to risk/benefit analysis, and no major construction can be undertaken without legally filing an "impact" statement. What now seems shockingly risky to us on the part of early Granville residents was often routine for them. Largely unburdened by the constraints of even local government, they expected to risk much, knowing that subsistence could still be at hand in a largely undeveloped countryside. They thought big, even if space travel was unimaginable to them, and left us a provocative example of entrepreneurship; the Granville Furnace was a typical 19th century Granville venture.

Notes on sources: Any account of past Granville events owes a debt to 1) William Utter's Granville: the Story of an Ohio Village and 2) Henry Bushnell's The History of Licking County Ohio. In addition, this account draws on Edward Noyes "Granville Furnace" article, published in *Ohio Historical Society Transactions* January 1956. Technical terms associated with iron manufacture can be found in most dictionaries, esp. those like McGraw-Hill Dictionary of Scientific & Technical Terms, 2nd ed. NY (1978). Metal iron recovery schemes are described in encyclopediae, e.g., Kirk-Othmer Encyclopedia of Chemical Technology Wiley NY (1980).

William A. Hoffman

The Historical Society
Museum
is now closed
for the season.

The museum will
open once again
in Mid April
for the 1998 season.

Museum hours are from
One to Four p.m.
Saturday and Sunday
afternoons
Mid-April through Mid-October.

THE GRANVILLE HISTORICAL SOCIETY'S 2005 PROJECT.

Earlier issues of *The Historical Times* reported on the ambitious project sponsored by the Granville Historical Society in preparation of the bi-centennial celebrations of our village in 2005. Society Vice-President Tom Martin is chair of the 2005 Committee. The Committee has met for the past year developing proposals and assigning writing tasks to various members with the goal of producing a new history of Granville.

Please keep in mind the Society's efforts through the 2005 Committee to ensure a thorough and appropriate anniversary celebration for our village.

**Remember the
Annual Banquet
sponsored by the
Granville Historical Society**

**Wednesday
October 29
Presbyterian Church Hall
6:30 p.m.**

A Letter from Granville

From Rev. Thomas Corlett, U.S.A. to his uncle Thomas Corlett, at Orrisdale, Kirk Michael, Isle of Man. Thomas was born about 1815 at Orrisdale, and emigrated with his father and mother to Cuyahoga County, Ohio in 1827. He died in 1891.

Granville, Licking County,
Dec. 1853

...I am now Rector of St. Luke's Church in Granville. Granville is about one hundred fifteen miles south of Cleveland and thirty south of Gambier where I have been spending the last eighteen months. I devote all my time to preaching. We have in this place one College, one High Male Academy and two female Seminaries. This gives us large congregations, and makes our village appear much larger and stirring. I preach twice on Sunday, hear a Bible class at intermission and lecture to the Episcopal Female Seminary Sunday evenings. We have connected with the parish a female prayer meeting. This is the extent of my duties.

Dear Uncle, who thought when I was a little boy running around the streets of Kirk Michael, that I should ever be off here in America, Rector of St. Luke's and lecturer to the Episcopal Seminary of the Diocese of Ohio? God's ways are not as our ways.

...I cannot see that Father and Mother look much older than they did years ago. I am happy to tell you that they are still striving to walk in the narrow way. They feel very anxious to hear from you. I think as old age creeps upon them, they think more and more of their friends on the other side of the Ocean.

... Mr. Gill thinks some of visiting the Island with his wife in the spring or next summer. Mr. Gill is building a new State Asylum; it is to cost seventy thousand dollars. He will not be able to visit the island until he finishes this building. ... Brother John is to work with him.

Brother William is still on his farm. Brother Charles is expected from California sometime this Winter. Sister Mary it is possible you may see next year; she is pretty well. Sister Jane is living in Brooklyn, New York; her husband is working there. Sister Eliza is still teaching in Cleveland. The Manks [sic] people are generally well. My parents are very comfortably situated in a good new frame house on their farm...

The state of religion in this country is at a low ebb. The public mind seems to be all taken up with business. No time for religion...

P.S. I send you a lock of my hair, so you may see how it looks.

Thomas was the second son of William Corlett, a member of the Manx community in Newburgh Township, about six miles from Cleveland, Thomas studied at Oberlin College and Bexley Hall, Gambier, and eventually became rector of St. Paul's Episcopal Church in Cleveland John Gill, husband of his sister, Mary, who was another Manx immigrant, became a successful building contractor in Cleveland.

Sources: The letter, here partially transcribed, is in the Manx Museum, Douglas, Isle of Man. A copy is in the British Library of Economic and Political Science, London.
see also; Charlotte Erickson, Invisible Immigrants. The London School of Economics and Political Science & Leicester University Press, ca.1972

Ann N. Hansen

TILE CIVIL WAR ROUNDTABLE

Clarke Wilhelm announces the Fall Program for the Civil War Roundtable sponsored by the Granville Historical Society. Clarke begins his tenure as the member of the Granville Historical Society who has oversight for the Roundtable.

Tuesday, October 21:

"Winfield Scott in Mexico: Preview of the Civil War":

West Point Graduate and member of our Roundtable, Ed McCaul will examine the lessons learned in Mexico by future Civil War generals who served with General Scott.

Tuesday, November 18:

"Hollywood Does the Civil War":

Clarke Wilhelm will provide a survey of cinematic treatments of the Civil War, discussing the good, the bad and the ugly films. Clarke notes that film excerpts will be shown to keep people awake!

Tuesday, December 16:

"The Court Martial of Mary Surratt":

Attorney Tom Mellot will look at Mary Surratt and her relationship with Booth and then examine her due process rights during

the trial and how those rights might have been treated today. Roundtable members will recall Tom's earlier presentations about Mosby and about Brice's Cross Roads.

The Granville Civil War Roundtable meets on the third Tuesday of the Month in the Society's Old Academy Building, located at Main and Elm Streets in Granville. Meetings begin at 7:30 p.m.

Clarke requests members of the Roundtable who are interested in giving a presentation to contact him at 587-2665 [W] or 587-1119 [H]

The Roundtable gatherings are open to all members of the Granville Historical Society and their guests.

EJ) KERLE GIVES SEPTEMBER - ROUNDTABLE PRESENTATION

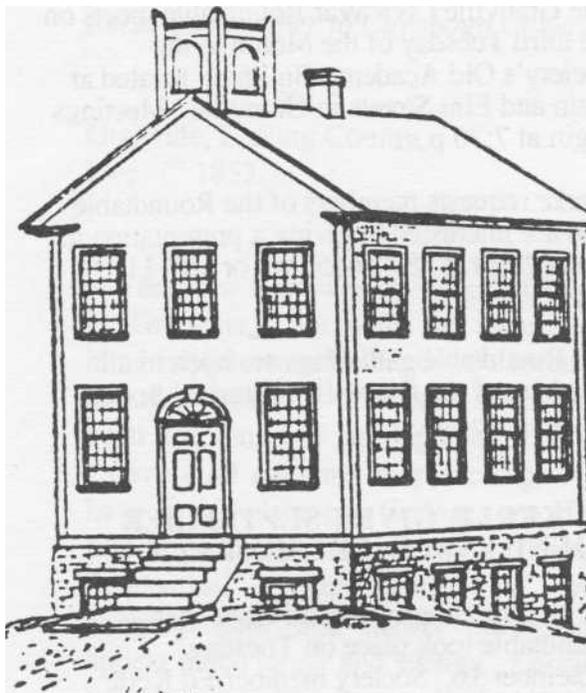
The first meeting of the fall Civil War Roundtable took place on Tuesday, September 16. Society member Ed Kerle challenged the members to consider the battle of Glorieta Pass, near Santa Fe, New Mexico. Ed suggested that this battle may have been correctly called "The Gettysburg of the West." Ed reminded us that the Far West usually get short shrift in most examinations of Civil War battles. He undertook serious research into this rather unknown battle and suggested that this conflict in the New Mexico lands in northern New Mexico was of crucial importance in the final outcome of the Civil War.

SOCIETY RECEIVES COPIER

Through the generosity of the First Presbyterian Church of Granville and the work of Society Vice-President Tom Martin, the museum building now has a copier. The Church kindly gave us a used copier when they purchased a new one. This machine should assist in rendering various bureaucratic endeavors necessary to the society's well being easier to accomplish.

Many thanks both to Tom and to the Presbyterian Church.

From the Archives... .



HISTORICAL MARKER FOR OLD ACADEMY BUILDING

The society is actively pursuing the means to erect an Ohio Historical Society Marker near the Old Academy Building. This building is historically significant and is one of the oldest buildings from early Granville still extant.

We will keep members of the society informed as this project goes forward

An early drawing of the Old Academy Building before it was remodeled in the 1860 's

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of
Granville Historical Society

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*This is the Third Issue in Our
Eleventh Year
Of Publishing
The Historical Times*

*We hope that the members of the Society
have enjoyed the articles.*

Editorial Board

*Flo Hoffman
Maggie Brooks
Cookie Sunkle
Tony Lisska*

*Send comments, suggestions
or queries to:*

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