

MYSTERIES OF MARTIC

When my family and I achieved a long-standing goal and moved to the country, a month before Pearl Harbor, we little dreamed that the trials and pleasures resulting from that rash and untimely act would culminate in a paper on Martic Furnace and Forge being prepared for the Lancaster County Historical Society.

The house and land acquired are located in Providence Township, a short distance west of Route 72, on the road to Rawlinsville, near that vaguely defined spot on the map, known as Smithville, and in the general region of an equally vague area anciently known as "Begarrow."

Early in our residence, while exploring a small stream at the edge of the land, I was greatly puzzled by finding a fragment of iron slag. Later on, I found another piece in the yard, which seemed to go beyond accident. Then, in 1949, while digging near the site of an old barn foundation, my spade struck something solid, which, upon being removed, was discovered to be a fragment of a five-plate stove. Hasty digging brought two more pieces to light.

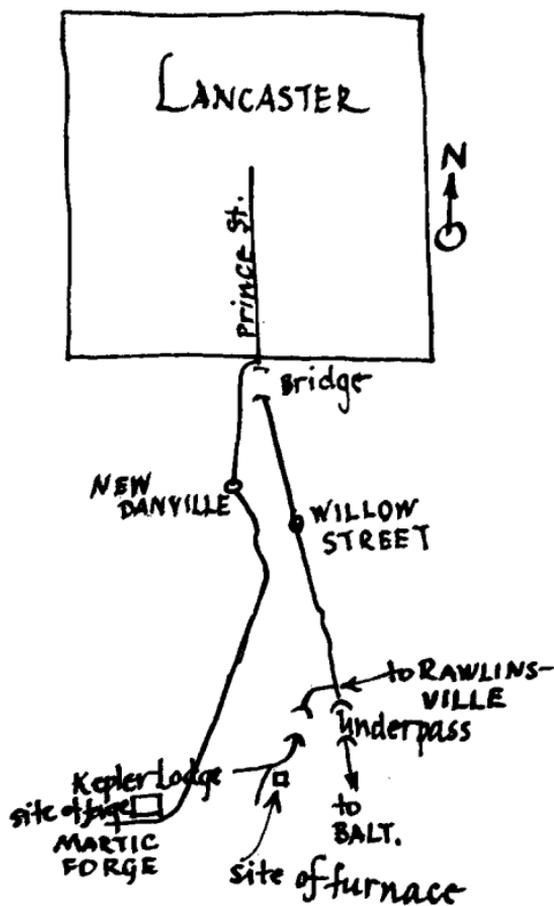
Although these pieces were somewhat the worse for a probable century and a half of burial, enough of the decoration remained to permit comparison with illustrations in Mercer's *Bible in Iron*.² This examination seemed to point to one of two furnaces, one of which was Martic. To me, as to many persons, Martic meant Martic Forge, several miles distant. This gave me no more reason to regard the fragments as being from the region of our house than of being from George Ross' Mary Ann Furnace. Here the matter rested for a time.

We knew our house to be old, but had no idea of its exact age or who built it. So, starting backward from the earliest reference in a deed (1830), I began to work my way into the mysteries of the Lancaster County Court House, and the even deeper mysteries of the Pennsylvania Land Office at Harrisburg.

I had not penetrated far in my search before I began to find references to an iron furnace and lands. About this time I learned that what is now Providence Township was, until 1853, a part of Martic Township, which would explain why the furnace was called Martic. It soon became evident that our property was, at one time, a part of the lands of Martic Furnace. The presence of the slag fragments was explained.

When the name of Martic is mentioned, in connection with iron manufacture, most people probably think, as I did, of Martic Forge, a community by that name where there still stands the iron master's house (Kepler Lodge), although no trace of the forge remains. That there was a furnace, also called Martic — a part of the same Company's operations — is less well known, unless one has encountered one of the rare stove plates produced by that Company.³

The actual site of the furnace is probably known to only a few persons, for no surface evidence remains of it, except for a portion of the dam and a tree-grown ditch that was once a mill stream. Only by digging below the surface at the site of the furnace can the actual evidence be found. (Fig. 1)



Confusion is further compounded by misinformation found in various publications. These, for the most part, copy uncritically errors initiated before the turn of the century. Most writers, to this day, repeat the statement of Swank⁴ who places the furnace near the village of Colemanville in the western part of the present Martic Township. He dates the establishment of the furnace as 1751. The same date was used by Ellis and Evans,⁵ and copied by the Colonial Dames.⁶

Fig. 1 Location of Martic Furnace and Martic Forge.

One writer suggests that the first transaction dealing with the Iron Company may have been a land patent issued in 1737. Others, on undisclosed evidence, place the date at 1754.

Whereas the stories of some of the early foundries and forges are well documented, very little has been done about this important early Lancaster County industry. Perhaps the reason lies in the many unsolved questions about the organization and its operations. Why, for example, were the forge and furnace set up in this obscure region, ten miles from Lancaster with a separation of four miles between them? Why did two young men, who could not possibly have known anything about the complexities of the iron industry undertake such an enterprise? When did it start and how long did the organization continue to operate? Why were no deeds conveying the properties purchased by the company recorded, despite the fact that Thomas Smith, the principal partner, was high sheriff during the probable years of purchase? Why did the Company fail at a time when others engaged in the same business were making a good profit for their owners?

The business of making iron and steel has long been basic to all operations in manufacturing and agricultural production. The smelting of iron and the manufacture of iron wares, tools and implements had been practiced in this country from its early days, after the manner developed in Europe. Furnaces were started in Jamestown and in Massachusetts in the seventeenth century.⁷

Although some encouragement was given by Parliament in 1750 to the production of and shipping of pig iron to the mother country, it was not effective in increasing the exportation of iron to England.⁸ (Fig. 2) The reason is not far to seek, since a rapidly growing population found iron and steel one of its greatest necessities.

Anno vicefimo tertio

Georgii II. Regis.

An Act to encourage the Importation of Pig and Bar Iron from His Majesty's Colonies in America; and to prevent the Erection of any Mill or other Engine for Slitting or Rolling of Iron; or any Placing Forge to work with a Tilt Hammer; or any Furnace for making Steel in any of the said Colonies.



Whereas the Importation of Bar Iron from His Majesty's Colonies in America, into the Port of London, and the Importation of Pig Iron from the said Colonies, into any Port of Great Britain, and the Manufacture of such Bar and Pig Iron in Great Britain, will be a great Advantage not only to the said Colonies, but also to this Kingdom, by furnishing the Manufacturers of Iron with a Supply of that useful and necessary Commodity, and by means thereof large Sums of Money, now annually paid for Iron to Foreigners, will be saved to this Kingdom, and a greater Quantity of the Woollen, and other Manufactures of

5
6 P 2
Great

Fig. 2 Title page of Act of 1750.

The Act, while attempting to encourage the production of pig iron, prohibited the erection in the colonies of slitting mills or rolling mills, plating forges, tilt hammers or steel furnaces,⁹ although it tolerated those already in operation. Martic Furnace and Forge were built after the passage of this Act.

Pennsylvania, with its growing and industrious population, provided an excellent market for iron products, as one can readily see by examining and enumerating the many iron items surviving in our museums. The years of the mid-eighteenth century were years of great growth in this industry, and ironmasters sometimes became men of wealth and position. All this despite the very considerable demands these industries made on capital, technical knowledge of the chemistry and mechanics of operation, the training of workers, and the detailed and unrelenting attention demanded by such a business.¹⁰

The earliest furnace in Lancaster County (present boundaries) was Elizabeth Furnace, set up by John Jacob Huber, and later operated by Henry William Stiegel.¹¹ The first bloomery was that of one Kurtz, operating on Octorara Creek, about 1726. This was followed by Windsor Forge on the Conestoga, erected by William Branson.

The second furnace erected in the county, and the third forge were the Martic iron works erected in the 1750's by Thomas and William Smith. The furnace was the first in the lower half of the county.

Iron ore was reasonably abundant in Pennsylvania, including Lancaster County. The first ores used were on or near the surface of the ground, and little technical knowledge was necessary to remove it. Bog ore probably was used at Martic Furnace, for an analysis of two Martic stove plates, made in 1909 for B. F. Fackenthal, Jr., shows a high phosphorous content.¹² An eighteenth century description of bog ore reveals some curious beliefs.

Argillaceous ores . . . comprehend the ochres, and more particularly those mentioned under the name of **bog-ores** of iron, which are commonly met with disposed in beds, and seemingly deposited by waters. Organic matters, such as wood, leaves, bark, shells, etc., are not infrequently found in the state of bog ores. This kind of transition seems to indicate an analogy betwixt iron and organic substances.¹³

The description of the Martic properties, in the *Pennsylvania Gazette*, July 16, 1767 (where they are advertised for sale), describes the ore as being within three miles of the furnace. There is an area immediately to the west of New Providence, lying within the three-mile limit from the furnace, where there are numerous large pits, from which iron has been, and still can be extracted. A road (abandoned, in part) runs from this area to the top of the hill overlooking the furnace site.

On March 8, 1759, Thomas Smith secured a warrant from the Proprietors, for a survey of 85 acres and 148 perches of land covering much of this area. No patent was issued to Smith, and we do not know when he began mining operations. Another small deposit lies in Pequea Township, just north of the Pequea Inn, on the west side of the road. This, too, is within the distance stated.

In addition to ore, an eighteenth century furnace required limestone, water power and labor. It is not the purpose of this paper to describe the technical operations involved in the operation of a furnace or forge, but a brief description may aid in understanding the nature and magnitude of the business.¹⁴

The furnace, itself, was a truncated stone pyramid about twenty-five feet square at the bottom and some twenty-five to thirty-five feet high. This structure was built close to the side of a hill to permit loading ore, fuel, and limestone into the top. Air was introduced into the bosh — the central part in which the melting occurred — by means of bellows, operated by water power, forcing a blast through a tube called a tuyere. Molten iron settled to the bottom, where it was drawn off, periodically, flowing into sand molds to form pigs, or into sand or clay molds to form cast iron items for direct sale. Slag, which floated on top of the iron, was drawn off from time to time.

Limestone — one of the necessary ingredients — was available to the Martic works, although, at a distance of about a half mile. Charcoal needed for firing could be made from the bountiful stands of hardwoods that covered the hills of the township. It was this requirement that made necessary the purchase of hundreds — even thousands — of acres of timbered land.

Fig. 3 Lush summer vegetation hides the furnace site, which is the corn field at the lower left. The Roy Deiter house (middle right) sits partly on the foundation of the ironmaster's house.



The site selected for the furnace met all requirements well. Not only were the ore, limestone and charcoal available, but there was a small stream, needed to operate the bellows. The furnace stood on land (now belonging to Roy Deiter) (*Fig. 3*) on the south side of a small stream which descends some four hundred feet within about two miles. About a quarter of a mile up-stream from the furnace site is the remains of a dam, from which runs a ditch, which doubtless was the mill race. From this there was a fall of some forty feet to the level at which the water was used.¹⁵

So extensive was an iron-making establishment, with its forge or furnace, stables, counting house, houses for workmen, as well as the iron master's house, that it was usually known as a plantation. In the case of Martic Furnace a grist and saw mill, owned by the company, stood a short distance down-stream.

If a company were planning to start a forge or furnace and had available only the kind of ore found in the region of Martic properties, a furnace would be the only possible first operation. A "bloomery" forge, converting ore directly into malleable iron, might only be operated if the ores were of fairly high grade. If the company intended or were forced to operate both forge and furnace, the furnace would come first, since it was necessary for the supply of pig iron, which, after heating and hammering to work out impurities, was converted into soft malleable iron.

The iron master's house was built on the hill back of the coal house, and overlooking the whole establishment. When the furnace land was purchased in 1903 by Howard Mowry, the house was standing, but in such poor condition that it had to be torn down.¹⁶ A small brick building, a short distance in front of the house was probably the counting house. This, too, was torn down only recently.

The moving spirit back of the establishment of the Martic Iron Company was Thomas Smith, of Martic Township. Smith was sheriff of the county during the period 1752-54. With him was his younger brother, William (Junior) who likewise was sheriff from 1758-60. The grandfather, Thomas, one of the earliest of Strasburg Township settlers, lived on land partly in Strasburg and partly in Martic Townships. His son William was a miller, operating on Beaver Creek near the present site of New Providence. Both Thomas and William (junior), grandsons of the original Thomas,¹⁷ must have been familiar with the ore lands and the region of the furnace from early childhood.

If we are to believe the description of the furnace published in the *Pennsylvania Gazette*, July 16, 1767, Martic Furnace was not built as a means to a quick profit, but for a long operation. It consisted of

. . . 4000 acres of land, remarkably well wooded, situate on a branch of Pequea in Lancaster County . . . the furnace, casting house, bellows, and bridge houses are of stone, completely and substantially finished; a large coal house; separate convenient houses for the workmen, etc, a good grist mill, two stories high, of stone near . . . 18

Date of Establishment. Various dates have been given, as previously noted, for the beginnings of the furnace. The exact date will probably remain one of the mysteries. Swank and Ellis and Evans set the date at 1751. If this date is correct, William would have been nineteen years of age, having been born in 1732, according to the entry in the back of his own ledger, in which he puts his birthdate as May 23, 1732. ". . . about 2 o'clock in the afternoon" "As per my father's Bible Account." Thomas is listed in the Martic taxes of 1778 as being among "men over 53." If we assume him to be no more than 54 at the time, his birthdate would have been 1726, six years earlier than that of his brother — a not unreasonable assumption. (Up to now I have been unable to find his birth date.)

One cannot always accept the tax records as unassailable evidence, yet on the matter of the date of starting the iron works, they are, so far, the only available evidence. These records in 1751 show Thomas Smith paying only an average tax. This certainly would indicate he had not yet acquired much land, let alone an iron works.

In 1754 his tax jumps from a few shillings, as before, to £19.6.0, which is many times that of anyone else in the township. Whether this means land, alone, or a furnace built and operating, can only be surmised. The building of the furnace, with all its accessories, building a dam and mill race, the purchasing of land, and the making of charcoal in sufficient quantities to keep the fires going, surely could not have been done in less than a year. Stoves were among the commonest of all furnace products. The earliest Martic plate listed by Mercer carries the date 1761.

As listed in various indentures, land purchased for the furnace included the following: 120A. John Funk, 200A. Jos. Blair, 150A. George Campbell, 125A. Alexander Baldrige, 150A. John Brownlee, 150A. Henry Gray, 50A. John Kinkead (*alias* Kinghead), 220A (sometimes listed as 270). David Wills, 100A. John Scott, 50A. Archibald (sometimes familiarly called "Baldy" in the tax records) Bready 100A. George Philips, 100A. George Kinkead, 260A. Baldrige and Jones, 3A. Jacob Yoner, and (an undetermined number) James Reed. The total, quoted in various indentures is given as 2,129A.

There are two oddities about the acquisition of this land. One is that in no case have I been able to discover a transaction indicating the purchase of a single acre of it, by any of the company. The other is the even numbers given. The lack of any recorded deeds, and the even numbered amounts of land would lead one to suspect that the persons from whom the land was acquired held no valid title, but were, in effect "squatters", who were glad to get what they could in return for relinquishing their questionable title. Only one — David Jones — held a patent. A few had purchased from patentees. Perhaps even this transaction was not always for cash. It was David Wills, one of the group, who forced Thomas Smith into jail for a debt of £30 (Nov. 1767 Case No. 58).

A few titles were clear, for another seller, David Jones, held title from Matthias Lambert, who, in turn, had a patent from the Proprietors, given on June 12, 1734.¹⁹ At the time of bankruptcy, all the land was seized by

the sheriff and sold. As has been stated, much of it was probably acquired during the period of Thomas Smith's term as sheriff.

Martic Forge was built on land along the Pequea, some four miles west of the furnace. Bridgen's Atlas of 1864 shows the creek to have been dammed at a point a short distance up-stream from the present position of the house. The forge (which was still in operation at the time the map was drawn) was between the house and the stream.

Like the furnace, this operation demanded a great deal of charcoal, so land purchases are extensive. We do not know whether the complete operations of furnace and forge were comprehended and planned together, or whether the forge was an afterthought. From the indentures by which the sheriff ultimately sold the lands, we learn that they included the following: 100A Jacob Yoner, 20A (sometimes incorrectly quoted as 100) David Jones, 100A David McBride, 150A John Hunter, 100A Andrew Christy, 100A Thomas Black, 100A James Patterson, 80A James Wilson, 150A William Reynolds, 175A Archibald Brownlee, and unstated amounts of Joseph Porter and the Widow Piney. The total is usually given as 1,275A.

These transactions, like those for the furnace lands, are shrouded in mystery. No indentures of sale have been located.

This establishment, like the furnace, seems to have been meant as a permanent investment, if one may judge from the house built for the ironmaster, and the number of houses built for the workmen. From the sale advertisement in the *Gazette*, we find the property included ". . . four fires, a coal house and other necessary buildings."

Finances. Samuel Evans reports having seen and copied a letter from Edward Shippen to Colonel James Burd which stated that "Tom Smith, the Sheriff (though he lived part of his time in the country) was almost ruined by the office."²⁰

This does not seem to have been a promising start toward being an ironmaster, yet, despite this, Thomas, who seems to have been the dominant partner, must have begun to acquire land on which to erect the furnace, as well as to secure a source of raw materials. Since his brother, William, was in his early twenties there is not much likelihood that he could have supplied the capital for such an enterprise. We know, from existing evidence, that stoves were cast, for William records the sale of several,²¹ (*Fig. 4*) but this was later.

Unfortunately a forge rarely, if ever, leaves identifiable proof of its products, such as the iron rods or bars it has beaten out. No records are available to indicate whether the business was successful, from the standpoint of producing a sufficient quantity of goods to return a profit.

Somehow, and at an undetermined date, the two brothers added two partners, who, between them, held one-third share in the Company. These men were William Bennet and Samuel Webb, both of Maryland. One suspects that both were induced to enter the business to bring needed capital

1765	Wm Smith	at Philip Brand Place	
	Comer size 5 plate		50
	29 paid in 12 months		70
			4 12 6
Wm John Miller			

Fig. 4 From William Smith ledger. Installment buying in 1765. A "middle size" five-plate stove, sold by William Smith. The smith, John Miller, whose account begins below, was the founder of Millersburg—later Millersville. Photo by Hugh Fiora

to it. Rumbblings of trouble began in 1761 when a mortgage was given by William Smith, Bennet, and Webb, on their joint two-thirds of the stock to James Wallace and James Fulton, both of Philadelphia. This is followed by an outright sale to these men in 1764.²² (The stove, previously mentioned, carries the initials of Thomas and William Smith, William Bennet and Samuel Webb.)

In 1767 Thomas Smith, Fulton and Wallace advertised the entire property for sale, and at the same time Smith advertised for sale a second parcel of land of 200 acres in "Conetsogoe" Township.²²

Penn. Gazette
 To Be Sold
 July 16, 1767
 Martick Furnace, with the Forge and about 4000 acres of land therewith belonging, remarkably well wooded, situate on a branch of Pequea in Lancaster County, Province of Pennsylvania, the furnace, casting bellows, and bridge houses, are built of stone, completely and substantially finished;

a large coal house; several convenient houses for the workmen, etc., good pastures, fields, well fenced; a great deal of meadow, and more easily may be made, having never failing streams. There is a large quantity of coal and ore now at the furnace, a considerable quantity of wood ready cut in the woods, for coaling; a very good bank of ore three miles distant from the works; the water never fails nor can they receive the least injury from the greatest floods; a good grist mill, two stories high, of stone, near and the lands adjacent well timbered, the forge is situated on Pequea four miles from the furnace, has 4 fires, 2 hammers, a coal house, and other necessary buildings, in good order; the whole stock, white servants, negroes, horses, waggons, etc., will be sold also. The purchaser, paying a fourth of the purchase money down, may have time given for the remainder. For terms, apply to THOMAS SMITH, living near the works or to JAMES WALLACE, and JAMES FULTON, in Philadelphia.

As further evidence of trouble, Smith borrowed £ 1,074.19.4 from Joseph Simons in 1765, and on May 5, 1768 transferred two tracts of land to the latter, presumably in satisfaction.²³

Creditors had by this time become so numerous they must have been standing in line. At any rate, Smith was jailed²⁴ and the property was advertised by Sheriff James Webb, Jr., in the *Gazette* on April 6, 1769. In the February 1770 Docket of the Lancaster County Court of Common Pleas is written a petition by Smith, "A languishing prisoner in the Lancaster jail" that he be released from prison.²⁵ He had been jailed under the 40 shillings debt law for £ 3/6 due David Wills, one of the original land owners. The case was brought up in the May term of court, and, no creditor appearing to guarantee his keep in jail, he was released. He had been confined over a year.

William Bennet, too, was jailed for debt,²⁶ following the bankruptcy of the Company, but, so far as has been discovered, no other partner was forced into bankruptcy, or jailed.

A complete list of suits brought against one or more of the partners, in various combinations is tedious, but is listed for the sake of record.

<i>Plaintiff</i>	<i>Def.</i>	<i>Term of Court</i>	<i>Case No.</i>	<i>Debt</i>
Hugh Caldwell (assignee of Jos. Porter)	vs. Thos. Smith	May 1768	45	£ 40
John Cameron, Thos. Bond, Jr., John Byrn, assignee of John Cameron	Thos. Smith	May 1768	33	£ 1900
John Cameron	Thos. Smith	Nov. 1768	243	£ 2400
Thos. Clench assignee of William Hamilton	Wm. Bennet and Thos. Smith	Nov. 1767	143	£ 400

Edw. Daugherty, Duncan Campbell exec'ors of Mary Dougherty	Thos. Smith	Nov. 1767	53	£ 17..12
Thomas Doyle	T.S., W.S., W.B., S.W.	Feb. 1769		£ 220
Thomas Doyle	T.S., W.S., W.B.	Feb. 1769		£ 400
John Elliot	Thos. Smith & Wm. Smith	May 1770	40	£ 40
Mich'l Fortinee, Caspar Shaffner John Barr	T.S., W.S., W.B.	Feb. 1764	216	£ 200
John Gibson	W.S., T.S.	Feb. 1769	14	£ 80..18..3
Michael Gross	T.S.	May 1769	230	£ 1000
John Jemmison	T.S.	May 1769	100	£ 200
Samuel Johnson	T.S., W.S., S.W., W.B.	May 1768	34	£ 800
(William Smith bails out Thos. Smith)				
Jos. Keepers	T.S., Jas. Fulton Jas. Wallace	Nov. 1768	75	£ 13..9..3 1/2
Jas. Keimer	T.S., W.S.	Aug. 1768	295	£ 600
Jas. Keimer,		May 1770		
Christian Hare, Ferguson McIlwaine, assignee, property of Thos. Smith				
Jas. McCardle	T.S., J.F., J.W	Aug. 1768	114	
John McCallmont and Company	T.S., W.S., W.B.			£ 117..6..0
Hannah Musgrove	T.S., W.S., W.B., S.W.	May 1765	303	£ 800
Abr. Musgrove Isaac Whitelock Thos. Poultney	W.S., T.S., W.B. S.W.	Nov. 1768	229	£ 500
Rohn Patten and Mark Bird	T.S.	Feb. 1768	18	£ 7..12..5
John Pierce	W.S.	Nov. 1768	117	£ 72

John Pierce	T.S.	Aug. 1769		£ 94
	(This was paid)			
Wm. Pusy	T.S.	Nov. 1770	47	
Richard Richardson	T.S., W.S.	Nov. 1765	134	£ 38..14.0
John Ross	Robert Fulton	Nov. 1768	152	£ 390
Jos. Simons		Aug. 1770		
		May 1770	167	
Henry Simund	T.S.	Nov. 1770	191	£ 500
William Smith	T.S., J.W., J.F.	Feb. 1768	183	£ 1750
Wm. Snodgrass & John Snodgrass	T.S., W.S., W.B.	Nov. 1767	189	£ 60
John Stayman (dec'd) through Ex'ors				
Barbara Staymon, Abraham Keagy, John Burkholder	W.S.	Nov. 1767 p. 39		£ 100
Rebecca Steel	Jas. Wallace	Nov. 1768	216	£ 6,000
	(paid April 7, 1773)			
Jas. Wallace	Jas. Fulton	Nov. 1768	215	£ 7,000
	(Settled by sale of Fulton share to Wallace)			
Peter Wikoff	James Fulton	Aug. 1768	279	£ 418
David Wills	Thos. Smith	Nov. 1767	58	£ 30
Francis Way	Thos. Smith	Nov. 1767	235	£ 25..2.0

These debts add up to the considerable sum of £26,334..13.11 1/2.

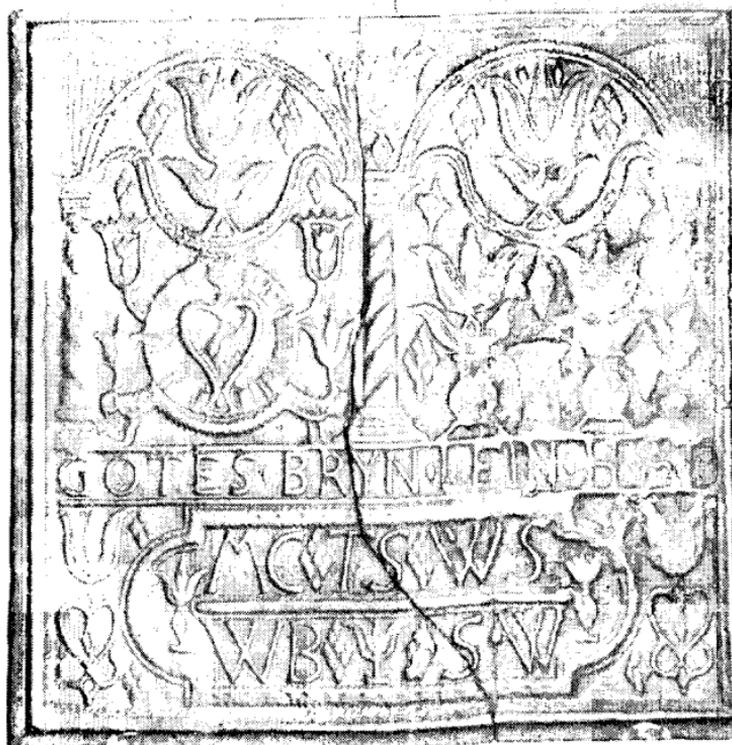
There were numerous small debts made here and there. For example, the year 1764 finds numerous loans from the Lancaster shopkeeper, McCord. McCord's ledgers list the following for persons connected with the Iron Company:

Feb. 9	Cash lent the company	21/0/0
Feb. 25	Per order Mr. Thomas Smith	3/5
April	Cash lent the company	10/0/0
June 27	Cash lent the company	3/0/0
July 10	Cash lent the company	3/0
Aug. 5	Order on Mr. Fulton	40/0/0
Sept. 9	Order on Mr. Fulton	60/0/0
	James Fulton	160/0/0

We know nothing of the personalities of these men, nor of their inter-relations. It would be helpful to know how well the two brothers got along, whether one was a spendthrift, the other careful. William's suit to collect £ 1750 from Thomas may only be taken as a matter of self-defense, since other creditors were suing. Their final settlement, reported in William's ledger, gives little clue to their private agreements, but such property as they owned in common even to "1/3 of a gerl that run away" seems to have been equally divided. Some light is thrown on their relationship by the fact that, in the mid-60's they tried (and failed) to set up "Smithburg" in the vicinity of the present Green Tree Tavern, east of Quarryville.

The accounts of a modern business that has gone through twelve years or so of operation, then has been forced into bankruptcy, doubtless presents a considerable problem to an accountant. When a barrier of two hundred years is interposed between the event and the accounting; the loss of records and direct knowledge of individuals involved make anything like a certain analysis impossible. Perhaps we shall have to list the cause or causes among the mysteries, but the peculiar nature of the land transactions, the constant debts, the changing of partners, all point to inadequate financing.

Fig. 6 Martie Stove plate, 1760. The initials stand for Martie, Thomas Smith, William Smith, William Bennet, Samuel Webb. Property of the author.



We know nothing of the efficiency of the Works, or the effectiveness of sales. Workers in iron works were probably somewhat unreliable, and being inclined to imbibe,²⁹ may have contributed to the difficulties. In 1763 William Smith enters in his ledger an expenditure of £ 6.5.0 "By sundry goal fees for men that was there from the works."

The 1760's were years of financial difficulties, culminating in a serious recession. The price of bar iron dropped from £ 25 a ton in 1767 to a low of £ 23 before the spring of 1769. Prices of pig iron in the same period declined £ 2 to £ 7.10 per ton.³⁰

Having been seized by the sheriff and advertised, the entire Works was sold on September 6, 1769 to satisfy four bonds given by the company³¹ to Ferguson McIlvane, manager of the furnace.

There is nothing in the records to indicate that work continued through the years of litigation, although there is considerable reason to doubt that it did, since the former manager, now owner, sold it all to Adam Hoops, of Lancaster, only six days after he purchased it.³²

Hoops, in turn, held the property only until the following June 2 when he sold it to "Four Gentlemen from Newcastle," George Monroe, Samuel Patterson, John McCallmont and John Malcolm.³³ (Question: Were these men the John McCallmont & Company that sued the Smiths and William Bennet, on November 1768 for a debt of £ 117.6?³⁴)

Obviously they were not ironmasters, nor interested in operating the property, themselves, for on February 18, 1774, they sold the furnace lands with furnace and all buildings and equipment to Nicholas Dillo, of Lancaster.³⁵

Dillo became indebted to Michael Fortinee, who sued for the recovery of £ 400. John Feree, sheriff, was unable to find a buyer, but on February 3, 1779, the new sheriff, William Kelly, sold 3/8 of the furnace land and furnace to Peter Albright and Henry Cryder of Lancaster for £ 378.³⁶ These worthies appeared to make a handsome profit by selling a tract of 435A on May 4 of the same year, to John Hart, a tanner, for the sum of £ 1000.³⁷ This indenture specifically mentions the furnace and buildings. There was no longer enough land to support a furnace, and, as Hart and his three sons were tanners, there is no reason to assume the furnace was ever used by them.

Older residents recall the tanning vats along the road. Rumor has it that the furnace, itself, was torn down about 1813 and the stones used to build an overshot grist mill, about a hundred yards from the furnace site, using the same water course. This mill was torn down in the 1930's to provide stone for roadside work.

On February 15, 1778 the Furnace lands of Baldrige, Wills, Baldrige and Jones, estimated at 650A, were sold by the four gentlemen to Sebastian Groff, for £ 1462.10.³⁸ In turn, his heirs sold the same land on August 14, 1801³⁹ and March 2, 1802⁴⁰ to Robert Coleman and Edward Brien, ironmasters, who will enter the picture again.

The fate of the forge and forge lands is not so easily recounted. Title to this portion was divided into eight parts, although the land was undivided.

I cannot with any certainty say when the forge went back into use, however, one Henry Smith is listed in 1779 tax records as the "manijor at the forge." Matthias Slough added to his numerous occupations by serving as manager from 1782 to 1788.

In 1783 the Forge Company is listed as having two forges and eight slaves. There must have been money in the business prospects for trading in shares was brisk. The four gentlemen from Newcastle divided the assets of the Company into eight shares, as they had done with the Furnace. Two shares were sold to James Fulton who sold them to a partnership of Michael Hillegas,⁴¹ Matthias Slough and George Ege, of Charming Forge, Berks County.⁴²

One share was sold to Joseph Musgrove, who also sold it to the above-mentioned partners.⁴³ Matthias Wilkinson's eighth share was sold on December 8, 1777 to William Montgomery, who sold it to (Hillegas)⁴⁴ who had also purchased another share.

Now the plot thickens. Slough bought out the share in the partnership held by George Ege, after which he proceeded to go bankrupt.⁴⁵ This bankruptcy court, headed by no less than the Honorable Benjamin Franklin, appointed a receivership composed of four Philadelphians, Richard Footman, Caleb Foulke, Owen Jones and James Alexander. Three Lancaster County men were added: Robert Coleman, Alexander Lowry and Joseph Hubley.

These men now divided their assigned Forge shares into thirty-five parts, distributed, I presume, in proportion to their position as creditors. Even these thirty-fifths became negotiable, for James Haldane, a Philadelphia coppersmith, sold to Hugh Bowes "2/35 or 1/4 share in a certain forge called Martic." On March 13, 1793, these 15/24 parts were sold to Coleman and Ege.⁴⁶

So far we have accounted for five-eighths of the total Forge stock. An additional eighth was sold by the four gentlemen to Michael Hillegas⁴⁷ on February 18, 1774. This was held by Hillegas until March 13, 1793, when he sold it to the partnership of Coleman and Ege.

Another eighth was sold to a John Welsh, February 23, 1775,⁴⁸ who on November 13, 1786, sold it to John Salter,⁴⁹ who, in turn, on June 26, 1793, following the common pattern, relinquished his ownership to the same Coleman-Ege combination.

One wonders what the arrangement between these two men may have been. Coleman, who was making a fortune, had purchased Elizabeth Furnace and other properties. He now bought out George Ege's half, which left him in sole possession of the Forge.⁵⁰

In 1799 Coleman installed his nephew, Edward Brien, as manager. The pair had been steadily buying up shares and additional land until they owned all available shares and a large proportion of Martic Township. Under Brien's care, a slitting mill was added in 1801 and a "roaling mill" in 1803.

In 1804 Coleman sold to Brien, for £ 6500, one moiety of all Martic property not then jointly held, so now each owned one-half of all the prop-

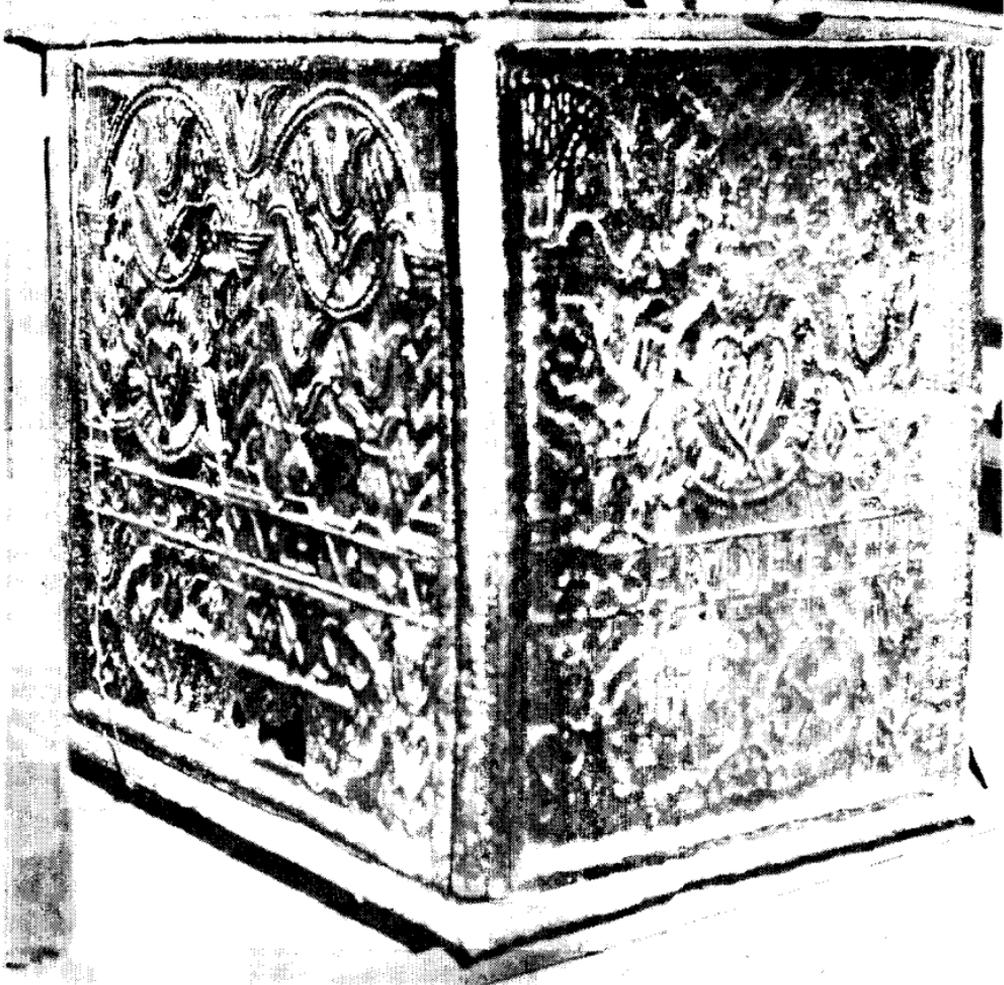


Fig. 7 Martie five-plate stove. Property of the Chester County Historical Society.

Photo by the author

erty. For a number of years Edward Brien's name appears in the tax records: evidence that he lived on the property as manager.

Brien's death, in 1816, again put Coleman in sole possession. Brien's will had stipulated that, if his uncle wished to do so he could purchase his (Brien's) half for \$60,000. Trustees of the estate decided, however, that \$10,000 would be a fair price. (May 1, 1817.)⁵²

The land holdings of these two men had become sufficient as almost to engulf all of Martie and (what is now) Providence Township. A remarkable map prepared by the Continental Title Insurance Company, in 1932, shows the joint ownership, as well as the separate holdings of the pair.

(As an aside, it might be mentioned that, on March 17, 1825, Coleman sold to Brien's widow Dorothy [who was the daughter of General

Hand] a two-story brick dwelling on the west side of north Queen Street. The property measured 64' 4½" long, and was 14' in depth.)

Upon Coleman's death, the forge property passed to his heirs, who, by 1852 had left the property in the hands of Robert, George Dawson Coleman and the heirs of James. On March 10 of that year, these parties sold the forge to George Steele.⁵³ Steele went bankrupt, and his assignees sold the property to Clement R. Potts, on April 19, 1860.⁵⁴ Steele recovered, paid his debtors, and secured a release on January 2, 1865, but did not go back into the business.⁵⁵

Potts, in turn, went bankrupt, possibly owing to the troubled times, so the forge again changed hands on August 18, 1862. The new owner was James S. Reynolds.⁵⁶

The sheriff's sale deed lists a steel furnace, a four-fired forge, stone coal house, stone blacksmith's shop, a two-story mansion, stone office, frame carpenter shop, stone barn, stone stables, two 2-story houses and nine 1-story tenant houses. The \$100.00 paid by Reynolds seems quite a bargain.

Through a device not clear to this writer, the forge was re-sold to a company of Davis and Potts, who operated through Mr. Potts until the early 1870's. On March 22, 1872, we see the end of known operations, as the property was sold by the heirs of Mr. Potts to one Joseph VanDyke, thus ending approximately one hundred and fifteen years since the start of operation.

One of my motives in preparing this paper is to call attention of the public to Martic Furnace and Martic Forge with the hope that this Society might see fit to recommend the placing of markers on or near the sites of this early industry. My own efforts, a few years ago, in connection with the Furnace to have this done, were rebuffed on grounds that nothing remained of the furnace.

If this criterion were applied strictly to all markers the Commonwealth would long ago have lost the position of many an historic monument. However, it is reasonable to require proof of location before any action is taken. This I am prepared to furnish, both by documentary evidence, and by showing tangible remains on the site.

I have traced the land titles which carry reference to the Furnace, and can show the evidence on maps. Through this means I can place the general site within the boundaries of a given purchase of land.

At the time of our first study, an engineer-neighbor secured the services of the owner of a magnetic detector. With this device I tested the area where I felt sure the furnace must have stood. Since I knew about how the furnace must have stood with relation to the hill, and by making a rough guess at two hundred years' erosion, I soon came upon a spot which affected the detector. An excavation of some eighteen inches brought to light quantities of slag, rust, and iron fragments, such as could only have come from an iron furnace. Recently, a ditch dug from this area to the nearby creek exposed a much greater quantity of similar debris.

I shall be happy to submit both pieces of evidence to the proper persons, and would respectfully urge that the State and this Society bring to

life one more bit of evidence of the significance of Lancaster County in the building of the Commonwealth.

R.D. 1 Willow Street, Pennsylvania

BURL NEFF OSBURN

NOTES

1. I am indebted to many persons for help given in one form or another: to Prof. Henry Kauffman for advice and criticism, and for the brilliant guess which led to the finding and ultimate purchase of William Smith's ledger; to Mrs. Osburn for hours of patient perusal of dusty documents, and for finding the Smith ledger among hundreds of similar volumes at a Pennypacker sale; to the staff members of the court house who have aided my efforts; to Attorney Samuel Wenger, whose knowledge of eighteenth century legal terminology and procedure provided correct interpretation of several indentures I was unable to understand.
2. Henry Mercer, *Bible in Iron*. Doylestown, Pennsylvania: Bucks Co. Historical Society, 1941. (Second Ed.)
3. *Op. cit.*, p. 105 and 123. (A complete stove is in the Chester Co. Historical Society.)
4. J. M. Swank, *Introduction to a History of Ironmaking and Coal Mining in Pennsylvania*. Philadelphia, 1873.
5. Franklin Ellis and Samuel Evans, *History of Lancaster County*. Philadelphia: Everts and Peck, 1883.
6. Pennsylvania Society of the Colonial Dames of America, *Forges and Furnaces in the Province of Pennsylvania*. Philadelphia, 1914.
7. For an exemplary piece of research, reported in lively style, see E. N. Hartley, *Ironworks on the Saugus*. Norman: University of Oklahoma Press, 1957.
8. A. C. Bining, *British Regulation of the Colonial Iron Industry*. Philadelphia, 1933. p. 76.
9. E. L. Bogart, *Economic History of the American People*. New York: Longmans, Green and Co., 1931. p. 119, 199.
10. A. C. Bining, *Pennsylvania Iron Manufacture in the Eighteenth Century*. Harrisburg, 1938. p. 187 et seq.
11. *Idem*, p. 188.
12.

	Cu	Mn	P	Si	S
#152 (Mercer)	.008	.360	2.204		.026
#117	.06	.066	.128	.71	.036

from B. F. Fackenthal, "Classification and Analysis of Stoveplates," *Bucks County Historical Society Papers*, 1917.
13. Thomas Dobson, "Iron," *Encyclopaedia*. Philadelphia, 1798.
14. For a more complete explanation of the subject, see Hartley, *op. cit.*, the pamphlets of the Hopewell restoration, and Bining.
15. This stream is designated on the Joshua Scott map of Lancaster Co., (1824), as "Furnace Run." The same name appears on Bridgen's Atlas of 1864. Unfortunately the present geodetic survey maps have changed the name to "Huber's Run."
16. Landis Mowry, son of the purchaser, recalls plowing up chunks of slag, and of finding a great many stoveplates, as well as other cast objects. The sale advertisement advises contacting Thomas Smith, "living near the works." Was it furnace or forge?
17. They were also grandsons of Judge Thomas Edwards. Weaver, M. G. *A History of New Holland*, 1728-1928.

18. The mill probably stood down stream at a point a little north of the junction of Route 72 and the road to Refton. This mill was torn down, later, and re-built as John Strohm's grist mill. Bridgen's Atlas shows the latter.
19. Deed U3-240.
20. Samuel Evans, Lancaster County Historical Society *Proceedings*, Vol. 1, p. 171. This statement is sometimes used to imply that Smith ruined the enterprise by his lavish living. Since there is no reason to believe the furnace or forge had yet been started, this could hardly have been the cause.
21. Under date of April, 1765 Smith records the sale of one Small 6 plate Stove 2.10.0, two Small 5 plate Do 5.0.0, three large 5 plate Do 10.10.0; again Nov. 1765, one Middle Size 5 plate Stove & one Bake plate to be paid in 12 months £4.5.0." William Smith Ledger. This ledger, used by William Smith from 1756 to some time in the 1790's is mentioned several times in Mercer, when it was the property of Mr. B. F. Owen, of Reading.
22. Recorder of Deeds Office, Deeds N-50 and N-54. Fulton, in turn, mortgaged his share to Wallace, as security for money advanced by the latter. (N-54)
22. Pennsylvania Gazette, July 16, 1767.
23. Deed H-390.
24. A note, presumably in Smith's writing, now in the Historical Society of Pennsylvania, addressed to Messrs. Hollingsworth and Adams, advises them of his intention to appeal to the Assembly for redress of his grievances. A search of the Colonial Records has brought no evidence to light that he actually appealed to the Assembly.
25. Book 17, p. 50.
26. The Pennsylvania Archives of January, 1772 prints his petition to be released (8th Series, Vol. VIII, p. 6735) but not until 1773 did the Crown approve his release from the York Jail.
27. William Smith's Ledger.
28. Pennsylvania Archives, Harrisburg. An interesting item comes to light in that William Smith records the Feb. 9 loan in his ledger under date of Feb. 10.
29. Bining, *Iron Manufacture*, p. 120.
30. Anne Bezanson et al. *Prices and Inflation During the American Revolution*. Ch. IX.
31. Deed SS-371. The sale notice speaks of ". . . a large quantity of coal and ore now at the furnace, a considerable quantity of wood ready cut in the woods, for coaling."
32. Deed SS-371. A letter from the Commissioners appointed by Edward Shippen to lay out the road from Shippensburg to the Ohio River, was signed by George Croghan, James Burd, William Buchanan and Adam Hoops. *Shippen Letters*, Vol. I, p. 177. Historical Society of Pennsylvania.
33. The late Judge Rodney, of New Castle, wrote that these men were well-known in Delaware history. There is a bronze plaque to Patterson on the wall of the State House, at Dover.
34. Nov., 1768 Docket, Case No. 223.
35. Deed S-21.
36. Deed S-297.
37. Deed S3-301. Allowance must be made here for the rapid depreciation of the lawful money of Pennsylvania. The unweighted average for fifteen important commodities rose from an index of 1784.4, in February, to 2770.2 in May. Anne Bezanson, *Prices and Inflation During the American Revolution*, Pennsylvania, 1770-1790. Philadelphia, University of Pennsylvania Press, 1951.
38. Deed S-691.
39. K3-347
40. L3-131
41. Hillegas was a Second Street, Philadelphia Merchant in 1766, selling "a neat assortment of stoves, among which are the cannon stoves so generally preferred . . ." He served as the first Treasurer of the Continental Congress.

42. SS-382
43. SS-382
44. SS-382
45. GG-18
46. SS-382
47. SS-371
48. EE-178
49. RR-370
50. P3-511
51. P3-516
52. A5-108
53. X7-404
54. A9-14
55. GG-741
56. B9-538

ABOUT THE AUTHOR

Born in Ladoga, Indiana, Burl Neff Osburn was reared at Benton Harbor, Michigan. He was graduated from Iowa State Teachers College with a Bachelor of Arts degree. His graduate work was completed at The Ohio State University where he earned Master of Arts and Doctor of Philosophy degrees.

Dr. Osburn married Bernice Bravinder. They are the parents of three children.

After teaching and serving as a principal at Sioux City, Iowa, Dr. Osburn in 1932 came to Millersville State Teachers College where, as director of industrial arts education, he has built a most remarkable reputation for the College, its graduates, and for himself. His special field is graphic arts. Dr. Osburn is a cellist of exceptional ability, and is a valued member of the Lancaster Symphony Orchestra.

The author has written many text-books, and is a much-sought-for contributor to professional journals.