

A History of
WARWICK FURNACE

WARWICK, CHESTER COUNTY, PENNSYLVANIA

Compiled and Written by
SPENCER LODGE WINDLE

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In the years of colonization prior to the Revolutionary War, a group known as the Ironmasters migrated to this country from England. These individuals had been operating forges and furnaces in England and now sought to make a new fortune for themselves in America.

Chester County, Pennsylvania boasted of one of the finest of these furnaces. This furnace, named Warwick, was located near the little village of Warwick, Pennsylvania. It will be noted from the name that this furnace was founded after the fashion of English principles.

Little data is available concerning Warwick Furnace's history and many contradictions are found in the narratives. However, an effort has been made to compile the following record as accurately as possible.

Strangely enough, in the year 1737, Warwick Furnace was started by a woman named Anna Nutt. This fact was occasioned by the death of her husband Samuel Nutt. Samuel Nutt had made plans for the establishment of a furnace on a tract of land included in his holdings and he had the foresight to mention his desires in a will naming his wife Anna Nutt, a nephew, Samuel Nutt, Jr. and Samuel Savage as his successors in this enterprise. The will stated that the heirs should have 120 acres of land on the South Branch of French Creek on which they should build a furnace and also have leave to cut as much timber on lands adjacent as should suffice to erect this furnace.

Accordingly, the furnace was built in the year of his death 1737, as directed by the will of Samuel Nutt. Samuel Nutt, Jr., died in 1739, his 21st year, and the furnace reverted to the remaining heirs, Anna Nutt and Samuel Savage, who continued the operations until 1741. Samuel Savage died in 1742 and the furnace was operated from 1741 to 1752 by George Taylor who had married the widow of Samuel Savage, Jr. In addition, Taylor ran the Coventry Forge which was one of a few neighboring furnaces and forges. Upon the death, at maturity, of Samuel Savage, III, George Taylor was discharged by the other share owners of Warwick Furnace. Taylor then went into a partnership with Samuel Flower in operating the great Durham Furnace located in Northern Bucks County. George Taylor was later a member of the Continental Congress and a signer of the Declaration of Independence.

Rebecca Nutt, the charming and beautiful wife of Samuel Nutt, Jr., was left a widow in her 20th year at the death of her husband in 1739. Not long thereafter, upon completing an extensive study of the fluxing of metals in Europe, an Englishman by the name of Robert Grace came to America. Being one of the largest iron furnaces in existence at the time, it would seem to be natural that Grace should visit Warwick. Here he was attracted by the charms of Rebecca Nutt and after a successful courtship, married her in 1741. This, then, brings into the history of Warwick, the one man who did so much to develop its contribution to the art during the early years of our country.

It appears that William Branson, a minor partner of the older Samuel Nutt, was associated with the operation during its early years, but this partnership was dissolved by Anna Nutt upon the death of her stepson, Samuel, Jr. The value of the property was greatly enhanced during this period. Upon his dismissal, Branson assumed operation of the Reading Furnace and apparently had no further connection with Warwick. It was then that the firm of Anna Nutt and Company was organized and Robert Grace appointed as Manager and Partner.

As an indication of its size, it is interesting to note that the records indicate that wood from 240 acres of woodland was required for its annual operation. The large bellows operated by an immense water wheel cost approximately 200 pounds. The weekly production of the plant, amounting to twenty-five tons of iron, comprised both pig iron and castings for pots, stoves, kettles, andirons, smoothing irons, clock weights and similar household devices.

For a number of years after his marriage, Grace managed the furnace; apparently removing his new wife from her duties in this connection. Grace, a very close friend of Benjamin Franklin, is credited by many historians as well as Franklin himself with having cast the first Franklin Stoves. Grace was also a member of the Junto, an organization sponsored by Franklin for the betterment of education in all matters of importance in that period.

Now that the organization and the subsequent management of Warwick Furnace have been established, it will be well to study for a moment a description of the furnace itself together with that of the surrounding estate.

The Furnace, according to the custom of the day, was built into the side of a small hill in order that the ore, limestone flux, and charcoal could be placed in it at the top. No doubt this old furnace must have created an impressive sight when in full blast. The intermittent roar of the forced blast could be heard for long distances and from the top of the furnace stack a stream of sparks was occasionally emitted as the flames rose and fell like the fiery breath of a great dragon.

The ironmaster's mansion was usually built on a low hill overlooking the furnace or forge. However, this was not the case at Warwick. A spacious garden where the wife of the ironmaster cultivated many gorgeous blooms surrounded the great mansion, all comprising a setting of unparralleled beauty. The mansion had many large rooms, each heated with a great fireplace. In most cases, furniture of the most excellent quality and construction was imported from Europe.

At Warwick, the mansion faced North. Situated near a bend in the road with a large meadow in front through which coursed a rushing stream and a rear flower garden ending at the foot of a hill, it must have presented a beautiful and romantic picture at the time. Warwick mansion, as well as the nearby office and barn were constructed of native stone.

Great fireplaces and ovens for boiling large quantities of water were built into the rooms and much of the iron and castings used in fitting the fireplaces, doors, etc., were cast at the furnace. As was the case with most similar furnaces of the time, the ironmaster also employed a tutor, who taught his children. Children of the iron workers were not educated by this tutor except in the case of a few of the better class of workmen and foremen, but even this was quite rare.

The iron workers lived in small stone or frame houses usually consisting of downstairs rooms with a loft above. An additional room or two was provided for the better class workers, but other than this, no other unusual advantages seem to have been provided. During these times, the cooking was done at the fireplace which, in addition, proved to be the only means of heating the home. Pewter dishes and plates were used as well as iron knives and forks with wooden bowls and trenchers for mealtime. The ironmaster, if of the distinguished better class, usually used silver and china.

The kitchen fireplace, in the laborer's home, was usually the largest, if not the only fireplace in the house with a large kettle suspended from a crane over a wood fire. Candlesticks and glasses were placed on the mantel shelf above the fireplace and the pewter plates, china dishes, and brown earthen ware were all stored in the corner cupboard.

In the kitchens of the ironmasters' mansions, china cups and saucers, imported delft ware and tankards were carefully arranged on shelves.

Throughout the long winter evenings, the fires were kept burning in all fireplaces of the mansion. This consumed enormous amounts of fuel and we can well imagine the endless task in tending these numerous fires.

Furniture in the first floor rooms was made of oak or mahogany including damask covered couches while upstairs, the rooms were equipped with curtained beds, massive chests of drawers and other pieces of heavy furniture of the period.

About the year 1750, Warwick Furnace was managed by John Potts, Sr. Samuel Potts, in the meantime having bought out the other heirs, owned it in partnership with Thomas Rutter until the former's death in 1790 when it reverted to the heirs of Samuel Potts. The furnace then remained in the Potts family until it was abandoned in 1867.

Historical records indicate that cannon and cannon balls were cast at this furnace for the Revolutionary Army by the firm of Rutter & Potts.

It is also recorded that George Washington brought his army to Warwick to repair his guns and refresh the men after having encountered a heavy storm on the 16th of September, 1777, which disabled the guns and impaired and endangered the health of the continental soldiers. Washington himself furnished proof that his army visited Warwick during the fall campaign of 1777. He wrote a letter bearing the date of September 17, 1777, to the Continental Congress in Philadelphia from Yellow Springs, Pennsylvania. In the letter, the resourceful Washington explained that his reason for delay in continuing his campaign was due to the effects of the previously mentioned storm, which had been injurious to both men, arms and ammunition.

On the same date, another letter written by Washington to General Maxwell indicates the same reason for remaining at Warwick longer than had been expected. While the majority of his men remained at Warwick, it is generally considered that Washington did not remain, but maintained his headquarters at nearby Yellow Springs instead.

One historian has recorded the story of a large bell made at Warwick Furnace by Rutter & Potts. It is said that this bell was used to call furnace workers to work from 1757 until 1874. During the revolution, at a time when the Hessians were passing through the town, the bell was rung to summon the citizens to assist in burying the cannons cast at the furnace that were awaiting delivery to the Continental Army.

Thomas Rutter, one of the two partners of the firm of Potts and Rutter, inherited a share of the Colebrookdale Furnace in Lebanon county, which had been founded by his grandfather, also named Thomas Rutter. The younger Rutter maintaining a share in the Warwick Furnace together with his interest in Colebrookdale furnace, lived in a large home in Pottstown named "Laurel Lodge". He died in 1795 at the age of 64 and was buried in Pottstown in the Potts-Rutter family graveyard.

In order to relate the turn of events surrounding Warwick Furnace history, mention here should be made of incidents occurring during the American Revolution and shortly thereafter.

Reputedly, Warwick Furnace was used as Washington's headquarters following the tragic battle of Brandywine, (as previously mentioned, some historians believe that only the men remained at Warwick while Washington remained at nearby Yellow Springs), from September 18, 1777 until September 20th, 1777, at which time he crossed the Schuylkill River at Parker's Ford in an attempt to interfere with Howe's march to Philadelphia.

While at Warwick, the soldiers took all the leaden clock weights they could find from among the inhabitants to mold them into bullets. It was necessary for the people of the village to obtain new clock weights at once, so great numbers of these weights were cast in iron at the furnace. During the Revolutionary War, the furnaces at Warwick were in constant operation for the government and large quantities of cannon and cannon balls were cast. Until some fifty odd years ago, it is said that several of these cannon, too inferior for use, could be seen half buried in the banks along the French Creek.

During a part of the 18th century, legislation was issued prohibiting the sale of liquor near the iron furnaces. Drunkenness was so common among workers that it was made necessary to take prohibitory measures in order to prevent the decline in iron production. Itinerant preachers, having heard of so much drunkenness in this section, filtered into the district for the purpose of converting the sinners to a better way of life. George Whitefield, a famous Methodist preacher, was threatened with the loss of his life by the iron workers during one of his circuit calls to Warwick. Mrs. Robert Grace (Rebecca Nutt) is credited with saving his life by appearing in person among the group and becoming a Methodist herself. She also permitted a small building on the estate to be used as a chapel.

Following George Whitefield, another preacher named Benjamin Abbott called to deliver a series of sermons in Warwick and the thoughtful Mrs. Grace, who was now quite old, sent a guard to the meeting to protect him in case the iron workers should attempt to take his life.

In the year 1812, a description of Warwick Furnace was given as follows: "The estate consists of 174 acres of land, 10 acres of full bearing orchard, a strong and constant stream farming a quantity of land involving 30 acres. The stream being eleven feet deep at its deepest point. A rolling and slitting mills with all appurtenances capable of milling 400 tons of iron into plates, hoops, etc., in one treat of 300 working days. A nail factory 105 feet long, having at present, sixteen patent nail machines capable of cutting and heading 400 tons of nails and leaving an extra ton for more machines for other purposes. The

other buildings consisted of two large stone dwelling houses two stories high, one new frame dwelling house one story high, one new small dwelling house (description not given), one three story barn 70 by 42 feet, one office, one smoke house, two blacksmith shops, cider press, outhouses, woodlease or license to cut wood for seven years."

The following values were given for the above described property.:

"Value of French Creek Works	\$24,000.00
" " Nail Factory	6,000.00
" " Approx. 20 nail mach. @ \$1,500.00	30,000.00
" " Stock	<u>20,000.00</u>
TOTAL VALUE	\$80,000.00"

From "Statistics of Iron Manufacture in Pennsylvania", published in 1850, it is noted that David Potts was the owner of Warwick Furnace and at that time employed one hundred men and boys and used fifty horses, mules and oxen. The largest product was 1,400 tons of magnetic ore. Actually, 1,100 tons of magnetic ore was made in 1849. The furnace capacity was indicated as being 1,400 tons of ore produced by a cold blast furnace powered by water.

On June 1st, 1863, the Hon. David Potts died at his home, Warwick Furnace, after having served in the Pennsylvania State Legislature and the National Congress. An obituary concerning his death states "His judicious management of his furnace (one of the oldest in the State) secured for him an abundant estate and enabled him to dispense his income with largeness of heart".

With the discovery of anthracite coal and its use in the manufacture of iron, Daniel and Nathaniel Potts came into possession of the furnace and estate. These two brothers made thousands of the old fashioned ten plate stoves. Later, as hard coal began to be used in stoves, the old ten plate style was supplanted by more modern patterns. After these stoves were relegated to disuse, Warwick Furnace practically suspended all operations. The two bachelor Potts brothers died and their three nephews came into possession of the estate which now amounted to about 550 acres of land together with the furnace, a mansion house that cost about \$9,000.00 and fourteen stone tenant houses. The barn was one of the finest in the country, having cost nearly as much as the mansion. When the original Daniel & Nathaniel Potts purchased the estate, it consisted of 1,500 acres, but they subsequently sold off certain portions bringing the residue of the estate down to 550 acres which was willed to the three nephews.

Tiring of the estate, the nephews sold it to a Mr. Thomas K. Sterrett for \$17,500.00. Mr. Davis Knauer purchased quite

a lot of the original Potts estate about this time, and it appears that Mr. Knauer's holdings became quite valuable due to the discovery of several granite quarries. Mr. Knauer is reputed to have rejected an offer of \$90,000.00 for his holdings from a firm of New York capitalists.

In 1895, the furnace had fallen into disuse, the many tenant houses uninhabitable and this beautiful setting of so much previous activity had now become silenced forever.

From the annals of the Superior Court of Pennsylvania dated October, 1883, an interesting situation is recorded, involving the new owner of the estate, Mr. Thomas K. Sterrett. Mr. Sterrett operated a saw, grist mill, creamery and forge by water power. This water was supplied by a head race nearly one quarter mile in length. The water supplying this race came from the French Creek which ran through the estate and supplied a dam located entirely on Mr. Sterrett's property. This dam was 400 feet wide at the breast and covered several acres of land.

On September 4, 1886, a suit was brought by a Mr. B.F. James, who owned an adjacent farm, stating that when the above dam was rebuilt and repaired by Mr. Sterrett after a washout, it held back water from his farm. Apparently Sterrett had attempted to settle the matter out of court by chipping off some of the dam breast, but it was not enough to satisfy James so he brought suit to determine the height at which the breast of the dam should be maintained.

In the years following Mr. Sterrett's ownership of Warwick Furnace, many new owners came into possession of the estate and it was never once used for the production of iron again.

In May, 1927, Mr. J. N. Pew, Jr., purchased the estate and has endeavored to keep it in original character as much as possible. He has improved the mansion, barns and houses and used modern methods in the development of the farms and land. Warwick Furnace Farm is now one of the leading show places of modern Chester County and its production in farm products of quality and abundance is extremely large, but the great furnace is silenced forever. It will, however, always maintain with undisputed pride its place in the progress of American History.

REFERENCE MATERIAL

- History of Chester County - - - - - Futhey & Cope
- Pennsylvania Iron Manufacture in the Eighteenth Century - - - -
Arthur C. Bining, Ph.D.
- Forges and Furnaces in the Province of Pennsylvania - - - - -
Pennsylvania Society Colonial Dames of America
- The Bible In Iron - - - - - Henry C. Mercer
- Pennsylvania Magazine of History and Biography - - - - -
Historical Society of Pennsylvania
- The Potts Memorial - - - - - Mrs. Thomas Potts James
- Extracts from the Pennsylvania Gazette - - - - -
Chester County Historical Society
- Newspaper Clipping Files of Chester County Historical Society -
- Statistics of Iron Manufacture in Pennsylvania - 1850. - - - - -

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