

BUENA VISTA FURNACE
/

by

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//

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CONTENTS

	<u>page</u>
Origins	1
Buena Vista and the Central Railroad	1, 2
View during horse and buggy days	Following 1
Iron bridge over Black Lick Creek at Buena Vista Furnace	Two views following 1
More land purchased	2
The Day Books	2, 3
Operation of the furnace	4, 5
Restored water wheel and blast machinery at Hopewell Village National Historic Site	Two views following 4
Close-up of Hopewell's last water wheel and blast machinery about 1925	Following 4
Diagram of bellows-type blast machinery	Illustration preceding 5
Source of furnace ingredients	6
Financial troubles and closing	6, 7
Making charcoal	Three illustrations following 6
Charcoal furnace hearth tools	Illustration following 6
Casting pig iron	Illustration following 6
Map of Buena Vista Area, 1856	Preceding 7
Was Elias Baker leasing the furnace?	7, 8
Why Buena Vista Furnace failed	8
Dr. Alexander Johnston, and Stephen Alexander Johnston	8, 9
Map, Estate of Dr. Alexander Johnston	Following 8
The Delano Coal Company	9, 10
Buena Vista Furnace Park Association	10, 11
Warren Delano III	Picture following 10
Close-up at furnace hearth	Picture following 10
View of hearth, 1968	Following 10
View of northeastern corner, showing eastern tuyere	Following 10
Charcoal wagon at Hopewell Village	Picture following 10
Gift to the Historical Society of Indiana County	11, 12
Development and present condition of the site	12, 13
Collapsed northwestern corner and western tuyere, 1968	View following 12
View from southwest, 1968	Following 12
View of water spillway from furnace, 1968	Following 12

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Origins

On February 22 and 23, 1847 United States troops under the command of General Zachary Taylor defeated a much larger Mexican force at a hard-fought battle three miles north of the hacienda of Buena Vista (Fair View). Excitement over this event resulted in the naming of Buena Vista Furnace. Exactly when construction on the furnace began, or when it was named, is not known. The partners in the enterprise were Henry T. McClelland, Elias B. McClelland, and Stephen Alexander Johnston, who obtained a deed on April 29, 1847 to a tract of about 90 acres along Black Lick Creek for a consideration of \$300 paid to William Jonas of Somerset County. The deed describes the tract as being situated on both sides of Black Lick Creek.¹ Here on the north bank of the creek between Armagh and Brush Valley in Indiana County and within sight of the Route 56 highway bridge over the creek, Buena Vista Furnace was erected.

The present dimensions of the furnace are 32 feet square at the base, tapering to 22 feet square at the top. The furnace is 30 feet high. At the southeast corner the initials "JW" and "JG" can be made out (probably the stone masons) and also an "R8".

Almost nothing is known of the McClellands. One source credits Henry McClelland with the construction of the furnace.² Elias B. McClelland was employed at Elias Baker's "Indiana Iron Works" in East Wheatfield Township at or near Cramer not long after he left Buena Vista Furnace. His wife "Sallie" or Sarah had literary inclinations and wrote five short stories and a poem which were published during 1857-1859. A daughter, Ella, nearly three years old, died October 8, 1857.³

Stephen Alexander Johnston, son of Dr. Alexander and Elizabeth (Lowry) Johnston, was born June 30, 1820 in or near Hollidaysburg, Blair County. At age 12 he clerked in the store of John Bell at Bellwood, Pa.⁴ He apparently came to Armagh with his father prior to 1847. More will be said of both father and son later.

Buena Vista and the Central Railroad

It appears that one of the factors which decisively influenced the decision to build Buena Vista Furnace was the prospect that the route of a railroad from Harrisburg to Pittsburgh, which later was the Pennsylvania Railroad, would go through the valley of Black Lick Creek rather than the Conemaugh River. As early as November 21, 1845 a meeting was held in Blairsville of persons "favorable to the construction of a continuous Rail Road from Harrisburg to Pittsburgh, by way of the Juniatta and and Blacklick, vallies, as surveyed by Col. Schlatter, and recommended to the

1 - Indiana County Deed Book 16, pages 149, 150.

2 - Chapman, Thomas J. The Valley of the Conemaugh, Altoona, 1865. Pp. 150-1

3 - Indiana Weekly Register, January 13, February 10, April 7, August 25, October 13, 1857; Aug. 10, 1858; January 4, 1859.

4 - Stewart, Joshua T. Indiana County, Pennsylvania, Chicago, 1913. Vol. I, pp. 647-8.

Pennsylvania Legislature."¹ Shares of stock in the proposed railroad were sold in Blairsville and Indiana during August 1846.² The next year the little village of Mechanicsburg - now Brush Valley - took advantage of what seemed like excellent prospects for a railroad to promote itself. It had been laid out in September 1833 by John Taylor, surveyor, on behalf of Robert McCormick, who also owned some of the land adjoining Buena Vista Furnace. Although the furnace had not yet been built at the time of the following advertisement, it is possible McCormick may have had some knowledge of the plans of the McClellands and S. A. Johnston. A sale of lots in Mechanicsburg, with six to nine months credit, was to be held April 1, 1847:

Mechanicsburg is situated in one of the best settlements in the county, and directly on the route intended for the CENTRAL RAILROAD - surrounded by IRON WORKS - it affords a first rate market for Country produce.³

On March 1, 1848 a meeting of citizens of Indiana County favorable to the Black Lick route was held at the Court House in Indiana. Archibald Stewart served as chairman of the meeting. A Mr. Gallagher who had examined the proposed route through the Black Lick Valley reported that "the route of a Rail Road located by Mr. Roebling, principal assistant Engineer to Mr. Schlatter" was "very favorable for Rail Road purposes " The meeting named a committee to procure subscriptions to the stock of the Pennsylvania Railroad Company "contingent upon the adoption by that company of the route above referred to." One of those named to this committee was Elias B. McClelland, one of the Buena Vista partners. Another was David Stewart, proprietor of Black Lick Furnace.⁴

More Land Purchased

The partnership acquired additional land for their proposed operations. On May 21, 1847 after the store on the original tract had opened, and probably after construction of the furnace had begun, another tract of 100 acres in Brush Valley Township adjoining the first was purchased from Thomas Martin for \$1,000. This included Martin's dwelling and other buildings. On December 3, 1847 a third tract was acquired by purchase(\$1,000) from Adam Altimus of Center Township. It was described as "Situate on Blacklick Creek in Brushvalley Township . . Part being in Wheatfield township." This brought the partnership's land holdings to 421 acres.⁵ Because of the need for large acreages of timber to furnish wood for charcoaling, it was necessary for furnace proprietors to have large tracts of woodland.

The Day Books

In the Baker Mansion, home of the Blair County Historical Society, are three Buena Vista Furnace Day Books which, when examined, turned out to be store journals.

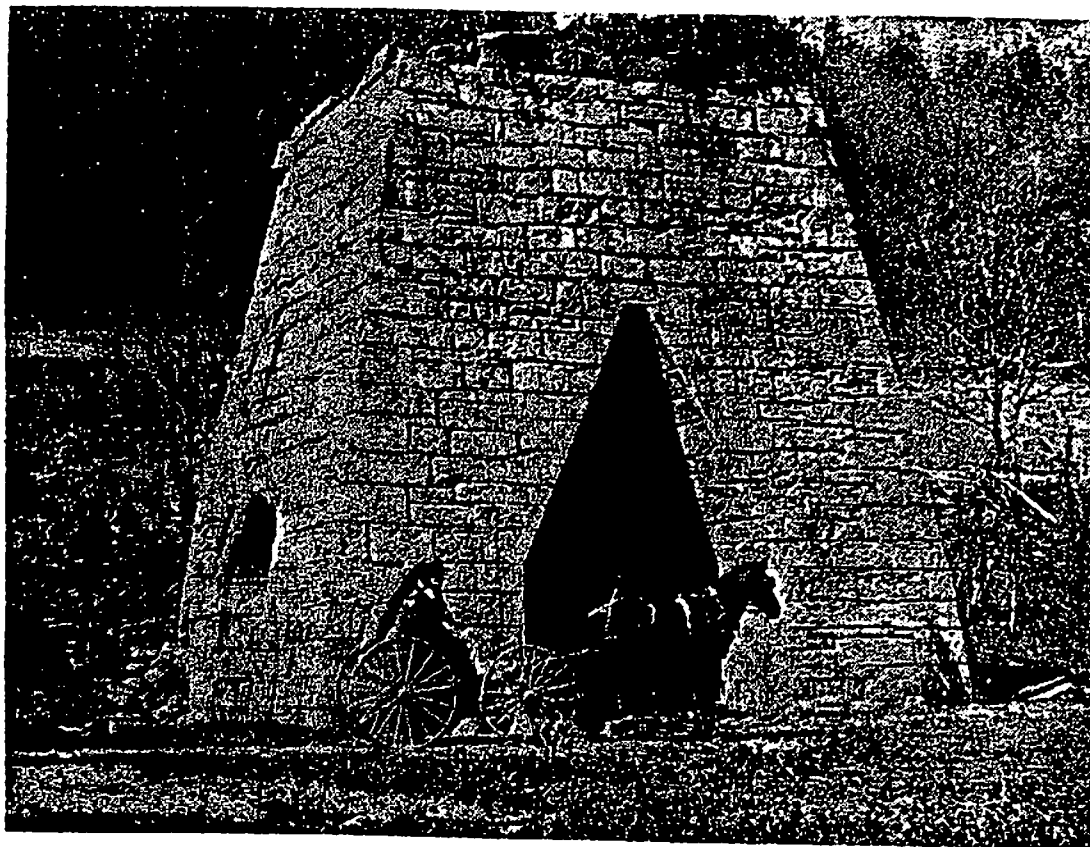
1 - Indiana Republican, November 19, 1845

2 - Ibid., August 5, 1846

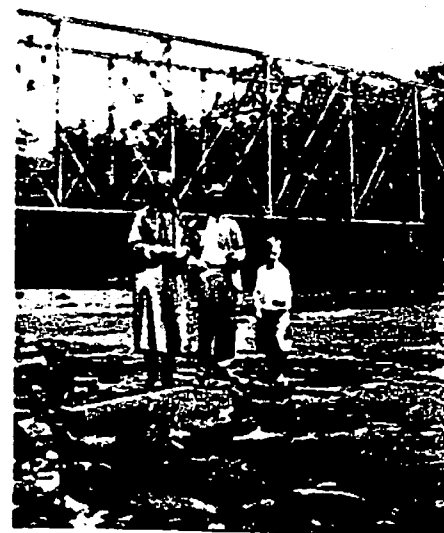
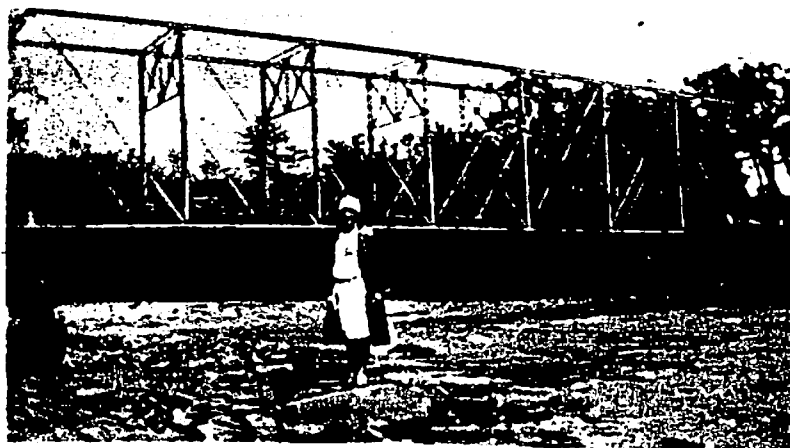
3 - Indiana Register, February 10, 1847

4 - Ibid., March 15, 1848

5 - Indiana County Deed Book 15, pages 33, 35.



View during horse and buggy days



Iron bridge over Black Lick Creek at Buena Vista Furnace. Bridge removed 1931. Left, Mrs. David Johnston. Right, Mr. & Mrs. Elliott Johnston and grandson, Robert Johnston. Courtesy Zan Johnston, Armagh, Pa.

"S. A. Johnston" is written on the inside cover of Day Book Number 1. The first account is dated May 7, 1847 only nine days after the furnace tract was acquired. Work on the furnace presumably began shortly afterward. There are four entries under this date to Samuel Singer, William G. Stewart, Thomas Martin, and E. B. McClelland (\$3.82 for alpaca, gingham, pants, ribbon, bottle of cologne, and Japan writing box).

On May 10, 1847 and numerous times thereafter were accounts marked "Boarding House," indicating there was on the site a boarding house to accommodate the laborers.

A few selected entries from these Day Books will throw an occasional bit of light on activities in the furnace area.

June 28, 1847 "William Felton. Moveing Exps. from Blacklick Furnace to Armagh. \$2.00"

July 10, 1847 "Improvements" including 5 shovels \$1.00, 1 curry comb 19¢, 3 door handles 94¢, 10 doz. "Lights Glafts" (glass panes) \$5.00 4 doz. screws 50¢, 1 lb. "Rock Powder" 38¢, $\frac{1}{4}$ lb. gun powder 13¢, 5 "Norfolk Latches" 94¢

July 12, 1847 "Boarding House" 27 food items \$10.84, including 4 chickens 32¢, 4 doz. eggs 25¢

August 2, 1847 "Smith Shop" one "Large Anville" \$43.00, one "Large Vice" \$19.50, and 25 lb. "Cast Steel" \$9.38, and other items. Total \$76.33

September 22, 1847 H. T. McClelland. Cloth goods totalling \$52.31

October 2, 1847 Boarding House "tomatos" 5 doz. 5¢, five bu. apples \$1.25, 17 head cabbage 51¢, and for "Paying Mrs. Underwood for washing \$1.00"

October 16, 1847 "Amt. Paid Mrs. Duncan for Produce at different times" \$16.41

December 31, 1847 "Furnace" one "Jack Screw" \$9.00, one tape line \$3.00 30 bu. oats \$9.38, 12 bu. corn ears \$2.70, 100 lbs. beef \$4.00, 66 lb. pork \$2.64, 50 lb. "Veil" \$2.00

January 22, 1848 "Furnace" one keg white lead \$3.50, one gal. flax seed oil 75¢

February 29, 1848 "Furnace" "Amt. Geo. S. Wike for Washin Bed Clothes for Board House" \$6.81

January 11, 1849 "William Felton. To Moveing Exp. from Black Lick furnace to McCormicks"

There are numerous entries in the Day Books in the names of H. T. McClelland, E. B. McClelland, and S. A. Johnston. The two entries concerning moving expenses of William Felton suggest that his services were needed in connection with initial furnace construction in 1847 and perhaps again in connection with repairs in 1849. He was probably a skilled furnace craftsman.

Since Elias Baker did not own Buena Vista Furnace at any time, it is something of a puzzle how the three Day Books happen to be with Baker's voluminous iron furnace and business records at the Baker Mansion. A possible explanation will be noted later.

Operation of the Furnace¹

The operation of all charcoal iron furnaces was similar. To start the furnace in "blast" the interior of the stone stack was filled with charcoal and lighted at the top. All materials were carried to the furnace "tunnel-head" or opening at the top, over a bridge from the nearest embankment. After several days, when the heated mass of charcoal had slowly dropped to the bottom, the stack was refilled with charcoal. This time the white hot mass worked its way upward fanned by a steady blast of cold air provided by the blast machinery which now began to operate.

It appears that Buena Vista was among the last of the cold-blast charcoal furnaces to be built in Western Pennsylvania. Hot-blast furnaces using anthracite fuel had already come into use as early as 1840 and it was not long until the hot-blast method and other improvements were in use at some of the charcoal furnaces.

Although it is not known for certain, it is possible the blast of cold air at Buena Vista was furnished by blowing cylinders or tubs similar to those which may be seen at Hopewell Village National Historic Site. This arrangement might be described as two pairs of casks fitting one into the other as snugly as possible with leather gaskets, and moving up and down alternately on a platform. The blowing tubs were powered by a large overshot water wheel located between them and below the platform, a connecting rod running from cams on each side of the water wheel to each blowing tub. An air box, made as air-tight as possible, received the compressed air. On two sides of Buena Vista Furnace are "tuyere arches" in which iron pipes leading from the air compression box were fitted. Thus air under pressure of about $\frac{1}{2}$ pound to the square inch was fed into the bottom of the furnace.

Another possible method of furnishing the cold air blast at Buena Vista may have been by a giant bellows arrangement which is illustrated here. This method, if it were used, was rather outmoded by 1847.

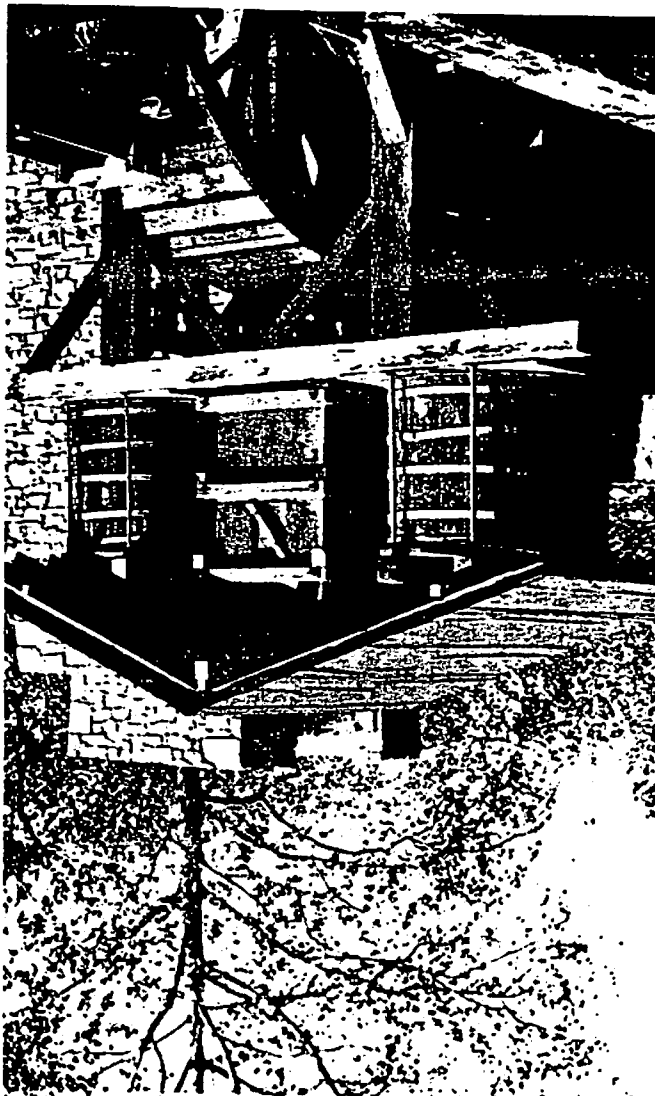
At Buena Vista Furnace the remains of the water raceway are very clearly seen leading from the furnace and emptying into Black Lick Creek. There is some reason for thinking the source of water was not Black Lick Creek, as most persons suppose. For one thing the flow of water from the creek, supposing that it came to the furnace by a feeder, would not have had enough force or power to turn an undershot or breast wheel. Also there are no discernible traces of a water channel leading from the creek to the furnace. Further, David Peelor's 1856 map, an enlarged section of which is shown here, locates a saw mill dam on the hill not far above the furnace. It is a definite possibility that the water to power the wheel came from this source by means of a flume. One obvious advantage of this would be that water flowing down hill would have greater force, and the overshot wheel is more efficient

1 - Information in this section adapted from Bining, A. C., Pennsylvania Iron Manufacture, Harrisburg, Pa. Historical & Museum Comm., 1938. Birkinbine, John "The Manufacture of Pig Iron in Pennsylvania," Annual Report, Secretary of Internal Affairs, Vol. XXII(1894), Part III. Kurjack, Dennis C. Hopewell Village National Historic Site, Washington D.C., National Park Service, 1958, pp. 13-18.

Water flowed through a flume to the overshot water wheel. By an up-and-down movement, pistons attached to cams on each side of the hub of the water wheel, squeezed together the blowing tubs, consisting of a tightly-fitting smaller tub inside each outer tub, and compressed the air, forcing it into the air-tight box located between the blowing tubs. From here the air was fed by an iron pipe to the furnace tuyere.

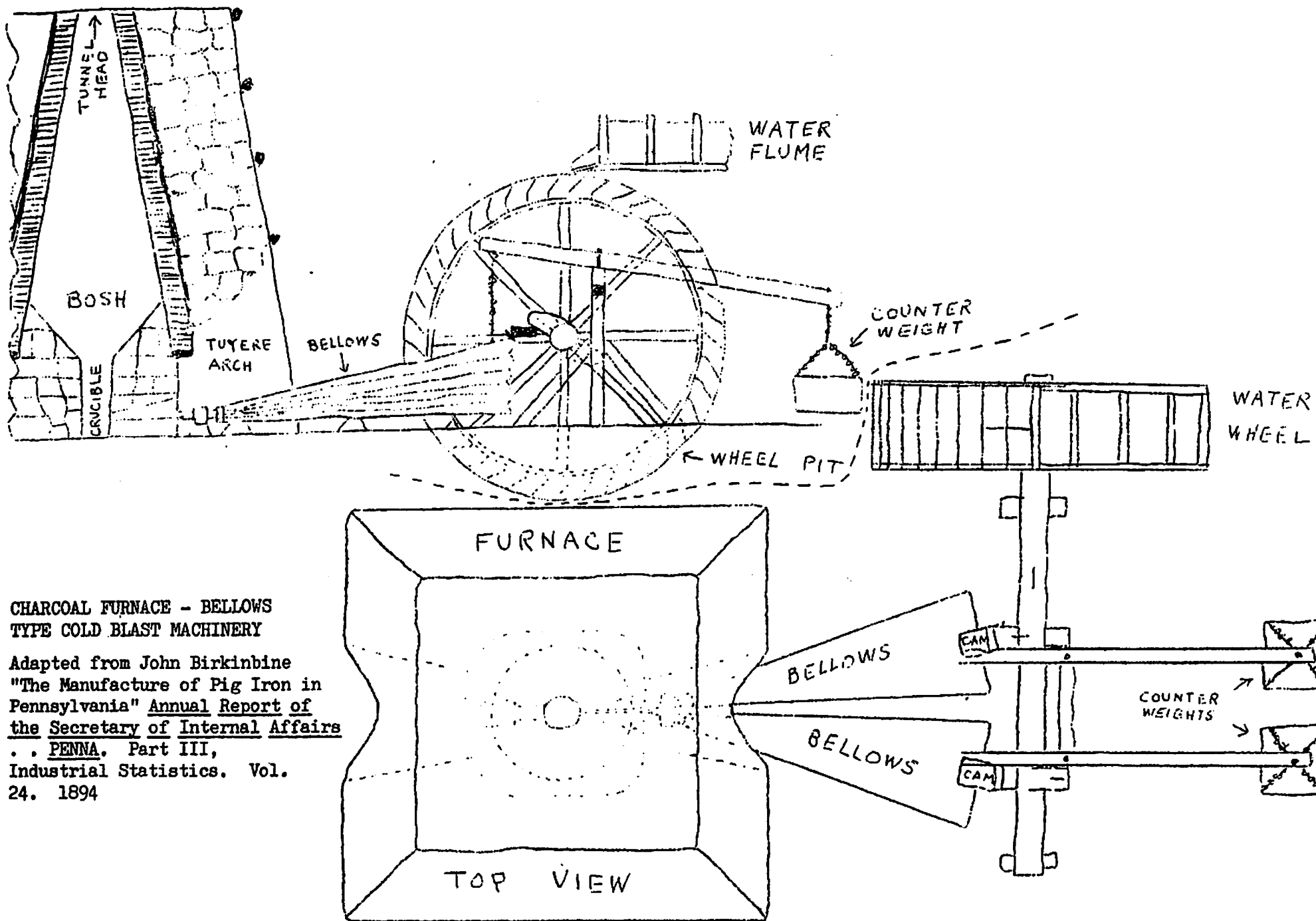
Courtesy: National Park Service, Hopewell Village NHS.

Hopewell water wheel and blast machinery restored in 1932.



Close-up of Hopewell's last water-wheel and blast machinery taken about 1925.





**CHARCOAL FURNACE - BELLOWS
TYPE COLD BLAST MACHINERY**

Adapted from John Birkinbine
 "The Manufacture of Pig Iron in
 Pennsylvania" Annual Report of
 the Secretary of Internal Affairs
 . . PENNA. Part III,
 Industrial Statistics. Vol.
 24. 1894

than other types then in use.

Returning to the operation of the furnace itself, as the second filling of charcoal was fanned to a white heat by the cold air blast, alternate layers or "charges" of charcoal, iron ore, and limestone were added. The molten iron, being the heaviest element in the glowing mass, sank to the bottom of the furnace into a small reservoir known as the "crucible." About twice a day the molten metal was drawn out of the crucible through the hearth into a casting bed of sand. At Buena Vista Furnace the hearth is the side of the furnace facing Black Lick Creek. Here there was at one time a wooden shed or cast house attached to the furnace. The main stream of molten iron issuing from the hearth was called the "sow" and the side feeders "pigs," therefore the product was commonly called "pig iron." It required about two tons of iron ore, one to two tons of charcoal, and a few shovelfuls of limestone to make a ton of pig iron.

The slag or cinder formed by the chemical fusion of the limestone with the impurities in the ore was removed as it was produced after it had risen high enough to pass over the forehearth dam. Here it was drawn aside by hooks as it congealed, broken by hammers if necessary, and carried to the dump piles in carts or wheelbarrows. Much of this material can be found today scattered all over the Buena Vista Furnace area.

The most skilled workman was the founder who regulated the furnace, made the molds(if any were used), and cast the iron. The keeper, or right-hand man to the founder, was responsible for the proper functioning of the blast equipment. The filler kept the furnace filled with the necessary charges. A gutterman had charge of the sand beds. It is not yet known whether any castings were made at Buena Vista. An archaeological dig on the site of the cast house might obtain an answer to this question. Perhaps the only product was pig iron.

Samuel Isaiah McClurkin, 340 Philadelphia St., Indiana, Pa. has a crude shoe last which he believes was made at Buena Vista Furnace. He says his great-grandfather, Isaiah Baker, and his grandfather, Isaiah Baker II, were both employed at Buena Vista Furnace.

Periods when the furnace was in blast, or "campaigns," were of short duration, seldom exceeding eight or nine months of continuous operation due to the necessity of renewing the crucible and inner linings of firebrick called "boshes." At Buena Vista Furnace some of the firebricks from the inner bosh were removed by workmen at the site who drew them out through the hearth, causing more of the remaining inner bosh to collapse.

Buena Vista Furnace appears to have had a clerk also. It has been reported that Samuel A. Douglass was admitted to the Bar at the September 1851 term of Indiana County Court and for a year or more afterward clerked at Buena Vista.¹

1 - Ritenour, W. H., comp. Indiana County Gazette, Special Illustrated and Trade edition, February 3, 1904, page 11. Also Stewart, op. cit., I, 387.

Source of Furnace Ingredients

The charcoal used at Buena Vista Furnace was made by workers known as colliers who piled wood cut into fixed lengths in a large circular cone shape in a dry, level clearing. In the center of the stack was a small "chimney" filled with chips and dry leaves which were lighted at the top. Then the top was partly closed with turf and most of the stack, except for a few necessary air holes, tamped with loose earth or turf. The collier had to stay with the slowly smoldering pile night and day, watching it carefully to prevent flames. After three to ten days the charcoal was raked into piles to cool. It has been estimated an average furnace consumed 800 bushels of charcoal every 24 hours - the equivalent of 50 cords of wood.¹

At present it is not definitely ascertained where the limestone used at Buena Vista Furnace was obtained. It may have been obtained locally or, since only a small quantity was needed in comparison to the other materials, it may have been waggoned from some farther distance.

The following comments regarding iron ore appear in the Pennsylvania Geological Survey of 1880:

The section of Lower Barrens exposed along Black Lick between the Cambria County line and Dilltown embraces over four hundred feet of rocks, in which are included three small coal beds and several limestone layers. Besides these, there is a band of carbonate iron ore, which ranges near the top of the section and which is known generally by the local name of the "Black Lick ore." This ore stratum was at one time extensively worked, supplying not only the Black Lick furnace with materials for smelting, but also the Buena Vista furnace below Dilltown, and even the Baker furnace on the Conemaugh . . . It ranges as a persistent deposit, varying from six inches to two feet in thickness; resting in shale it can be cheaply mined, and a sufficient amount of ore was easily obtained near at hand, for the supply of the small furnaces once dependent upon it for support. The ore is rather coarse grained, of a bluish cast, and to all appearances rich in iron . . .

Buena Vista furnace stood on the right bank of Black Lick, about one-half mile below the mouth of Armagh run. The ore supply at this place seems to have been inconstant and irregular, and the furnace was long ago abandoned on account of ill success.²

Financial Troubles and Closing

The following Sheriff's Deed dated March 30, 1850 confirms the above statement that the furnace had "ill success."

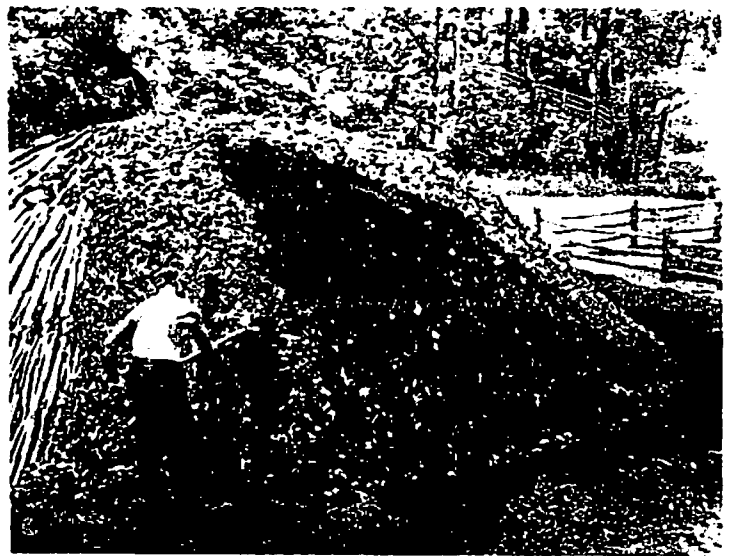
Gawin Sutton High Sheriff of Indiana county comes into court and acknowledges his Deed to Alexander Johnston for all the right title . . . (etc.) of H. T. M'Lelland, E. B. M'Lelland and Stephen A. Johnston of in and to the following described real estate . . . containing 100 acres more or less, one half of which is improved, having thereon erected a furnace called Buena Vista, a saw mill and two dwelling houses situated partly in Brushvalley and partly in Wheatfield township . . . bounded on the south by Blacklick creek and by lands of William Murphy, ---- Evans, Robert McCormick and Adam Altimus: Also one other tract of land con-

1 - Kurjack, op. cit., 13,14

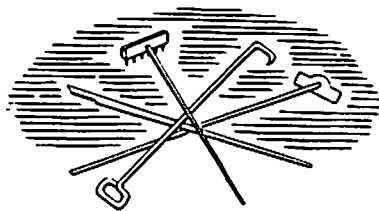
2 - Cited in Wiley, Samuel T. Biographical and Historical Cyclopedia of Indiana and Armstrong Counties, Philadelphia, 1891. Pages 258-60



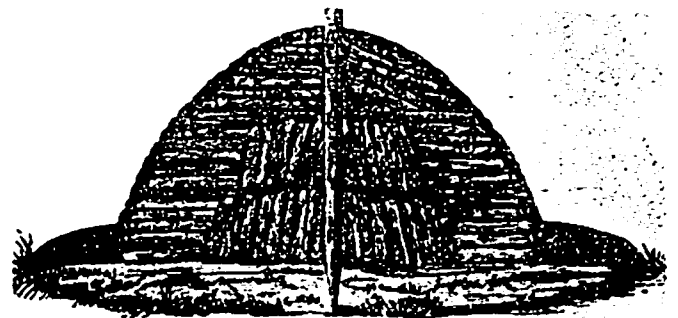
In this view the center pole has been withdrawn from the stack and a fire started in the pocket, using leaves, chips and twigs. The charcoaling process is under way. The collier must watch the stack day and night, raking sure it does not break into an open flame at any time. Courtesy National Park Service, Hopewell Village NHS.



Stack of cordwood, partially leaf-covered, receiving covering of charcoal dirt. The two covers made the stack almost airtight, allowing strict draft control by the collier. Courtesy National Park Service, Hopewell Village NHS.



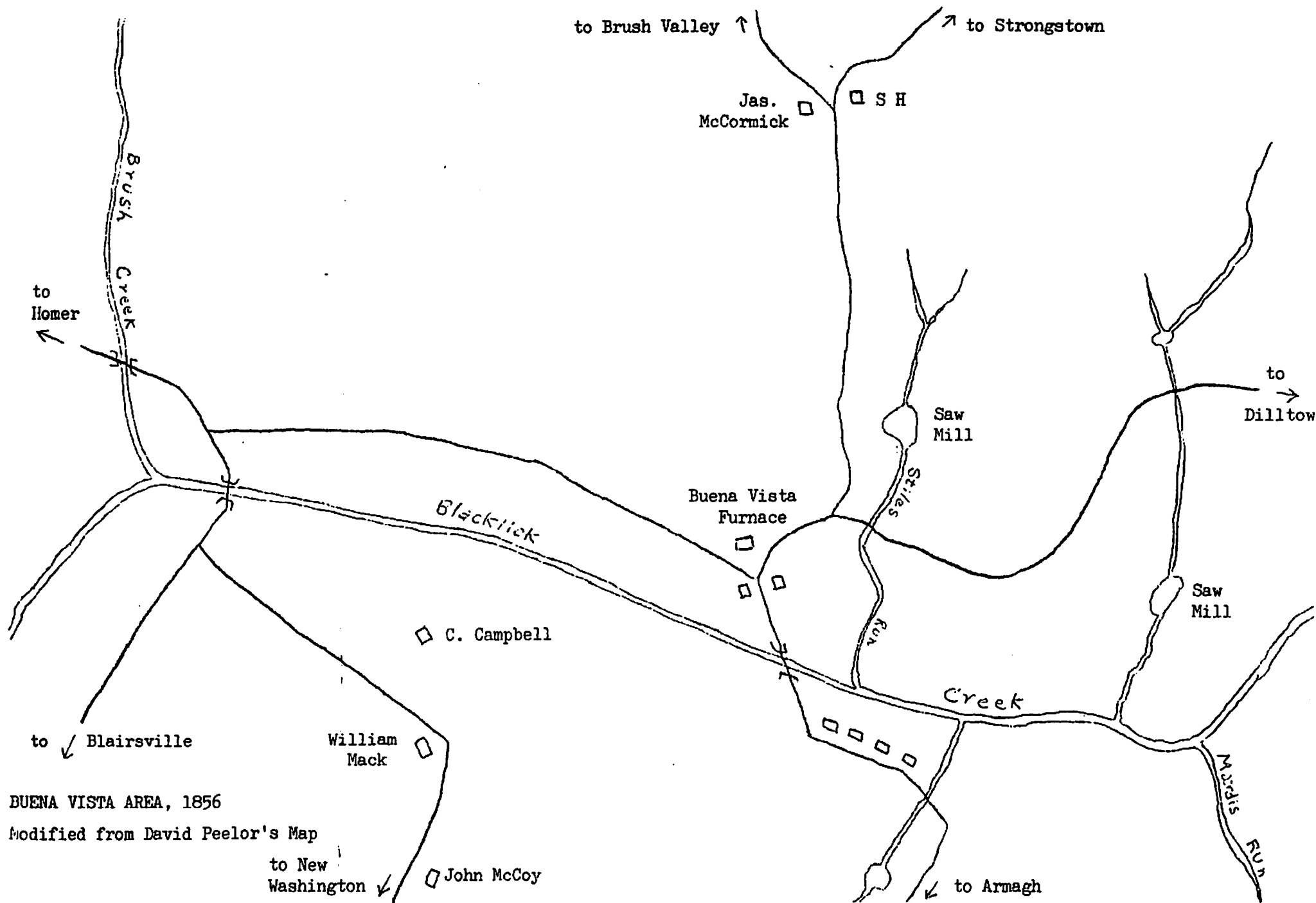
Charcoal furnace hearth tools



Making charcoal. This cross section of a pile of cordwood illustrates the manner of stacking the wood preparatory to starting the "coaling" process. The fire is started in the pocket made by the withdrawal of the center pole. Illustration from: Frederick Overman. The Manufacture of Iron in All Its Branches. 1850.



Artist's concept of making pig iron. The scene is at the front or hearth of the furnace. A cutaway shows the furnace interior. Molten iron flows through a sand channel into side feeders, thus illustrating the "sow" and "pigs." Slag or waste dribbles from on top of the molten mass through a higher opening. Courtesy National Park Service, Hopewell Village NHS.



taining 232 acres, more or less, having thereon erected three dwelling houses bounded on the east by lands of said M'Lellands and Johnston, on the west by Robert McCormick, and on the south by lands of James Campbell, situate in Brushvalley township. . Also one other tract of land containing 300 acres, more or less, having thereon erected seven small frame and log dwelling houses, called furnace houses, bounded on the north by Blacklick creek, on the south by lands of James Campbell, situate in Wheatfield township . . Also one other tract of land being parts of two larger tracts of land containing 100 acres, more or less, having thereon erected three small dwelling houses and two log barns, about 60 acres of which are improved, bounded on the south by Blacklick creek, on the east and south by lands of Joseph and Thomas Dias, on the north by lands of said M'Lellands and Johnston Situate in the township of Brushvalley in said county. Also one other tract of land situate in Brushvalley township, containing ninety acres, more or less, bounded on the east by lands of said M'Lellands and Johnston, on the south by lands of Christy Campbell, on the west by Brush creek and on the north by lands of Barnum. Sold as the property of H. T. M'Lelland, E. B. M'Lelland and Stephen A. Johnston for the sum of \$580.50.¹

The total acreage conveyed by Sheriff's Deed amounted to 822 acres. The saw mill mentioned in the Deed is probably the one on David Peelor's 1856 map which may have been the source of the water to power the overshot wheel. The two dwelling houses mentioned in connection with the furnace and saw mill, and also shown on Peelor's map, were likely the Furnace Store and Boarding House referred to in the Day Books. The "seven small frame and log dwelling houses, called furnace houses" are shown on Peelor's map on the south bank of Black Lick Creek opposite the furnace although Peelor indicates only four houses at this location. Perhaps in the six-year interval between 1850-1856, three houses were dismantled or burned.

It appears, if Samuel A. Douglass clerked at Buena Vista in 1851-52, that Dr. Johnston, or someone, may have continued to operate the furnace for a time but gave it up after finding it unprofitable. His son, Stephen A. Johnston, one of the three bankrupted partners, moved to a farm in Butler County "about 1852 at the closing of the old Buena Vista furnaces," according to an obituary notice.²

There appears to have been some kind of activity at Buena Vista Furnace as late as the latter part of 1854, as there is in the Historical & Genealogical Society of Indiana County an old store journal containing accounts of various individuals and on one page an account in the name of "Buena Vista Furnace."

Was Elias Baker leasing the Furnace?

This is an interesting bit of speculation which has to be posed as a question because of the lack of a definitive answer. There are several bits of circumstantial evidence which suggest that Elias Baker, a noted ironmaster of Blair County whose home in Altoona is now owned by the Blair County Historical Society, was somehow concerned in the operations at Buena Vista Furnace following the failure of the McClelland-Johnston partners.

We have already noted that three Buena Vista Furnace Day Books, or store

1 - Indiana County Prothonotary's office. Sheriff's and Treasurer's Deed Book 2, pages 112-13

2 - Indiana Times, October 26, 1904

journals, are with Baker's other extensive business records at the Baker Mansion. This, in itself, lends some weight to the supposition that Baker may have been leasing the furnace. We know that Baker never owned Buena Vista Furnace, but he did own the Baker Furnace, also known as the "Indiana Iron Works" located only a few miles away at Cramer, Pa. It has also been mentioned that one of the three unfortunate partners, Elias B. McClelland, was afterward employed at Baker's Indiana Iron Works, possibly as a founder, until as late as 1859.

After the death of Dr. Johnston, an Inventory and Appraisement of his estate revealed that he was a man of considerable substance and the largest item of his estate was a \$50,000 bond of the firm "Lloyd, Baker, McCauley & Lloyd."¹ A published "List of Dealers in Merchandize" in 1863 shows that "Indiana Furnace - Lloyd & Co." was assessed a \$7.00 mercantile license fee.² Here we have evidence that Dr. Johnston had a heavy investment in Baker's iron enterprises.

It would appear likely that, after acquiring ownership of Buena Vista Furnace and the surrounding tract of 822 acres, Dr. Johnston would seek for experienced persons to operate it, and that he would turn to the firm of Lloyd, Baker, McCauley & Lloyd in which he had such a large financial interest.

Why Buena Vista Furnace failed

It seems there were four reasons for the failure of Buena Vista Furnace:

- (1) The seemingly poor supply of iron ore near Buena Vista, and the need to wagon ore supplies from the Dilltown area or perhaps float it downstream in scows.
- (2) The location of the Pennsylvania Railroad main line in the Conemaugh Valley instead of the valley of Black Lick Creek.
- (3) The outmoded methods used at Buena Vista Furnace.
- (4) The decline in the price of iron. In 1849 the average price of a gross ton of the best charcoal pig iron sank to the lowest it had ever been - \$24.50 for number one foundry iron, as compared with \$53.75 in 1815.³

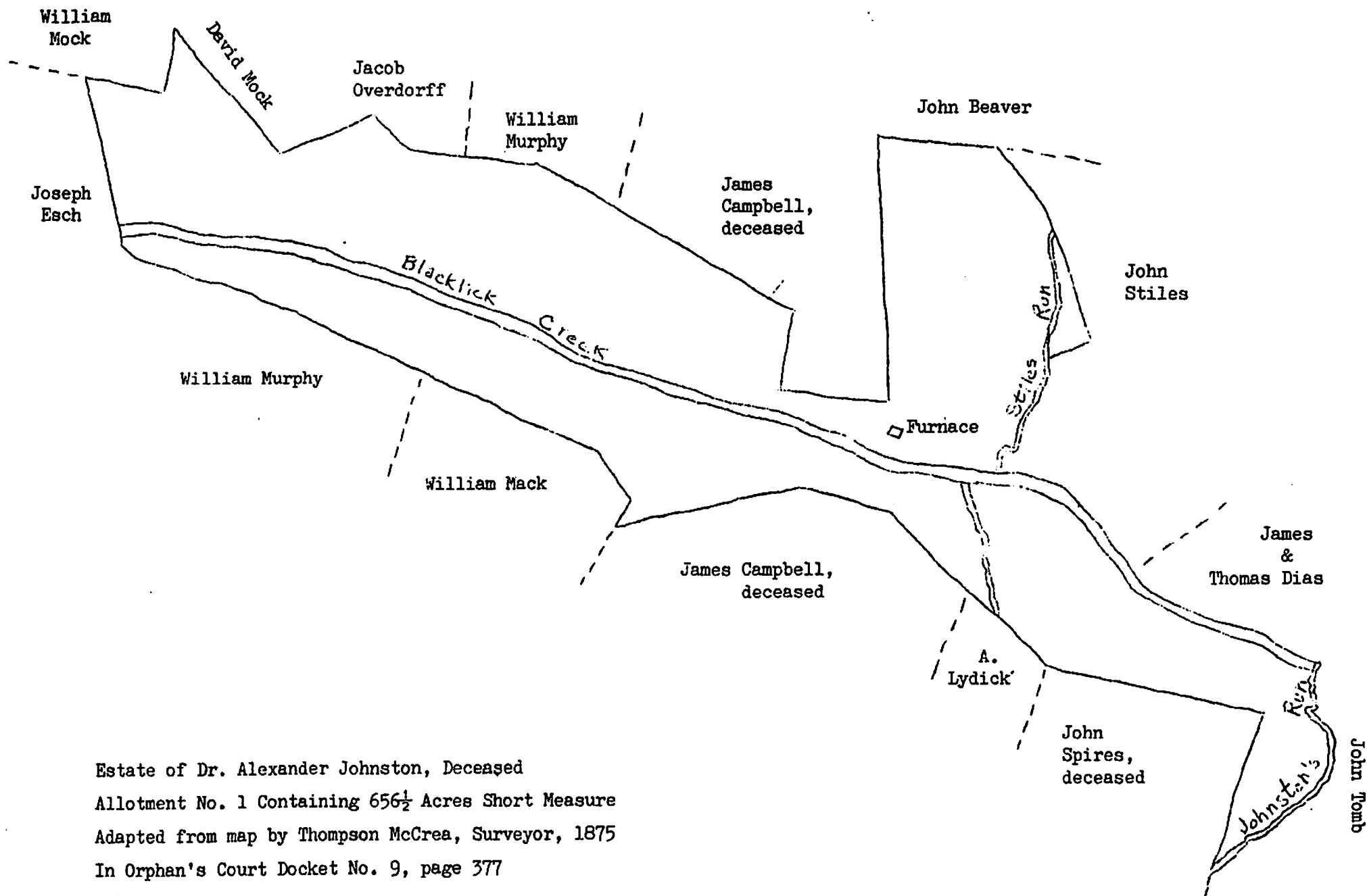
Dr. Alexander Johnston, and Stephen Alexander Johnston

Dr. Alexander Johnston was born February 21, 1790 in Huntingdon County, a son of Rev. John Johnston, Presbyterian clergyman and Revolutionary War veteran. He was educated at Pennsylvania Medical College in Philadelphia and afterward settled at Hollidaysburg, Pa. where he practiced medicine. The saddle bags used by Dr. Johnston were given to the author in 1968 by Stephen A. Johnston (better known as Zan Johnston) and were presented to the Saltsburg Branch of the Historical & Genealogical Society of Indiana County shortly afterward. Some time in the 1840's Dr. Johnston came to Armagh (where his great-great-grandson, Zan Johnston, still lives), but it is believed he practiced medicine very little here. He and his wife, Elizabeth Lowry, had five children: John Lowry, Stephen Alexander, Mary, George,

1 - Indiana County Register & Recorder's Office. Inventory & Appraisement File I-J, Item 10

2 - Indiana Weekly Register, June 2, 1863

3 - Birkinbine, op. cit., p. D37



and Jane.¹

Dr. Johnston died at his home in Armagh on December 15, 1874. By comparison with present standards, it is interesting to note that the total expenses of Dr. Johnston's funeral were \$79.00² He is buried at Hollidaysburg. His Will provided that his entire estate be divided between his three surviving children, John, Stephen, and Jane. The Inventory and Appraisement of his estate showed he had a tidy fortune amounting to \$105,643.19 in bonds and judgment notes, plus the house in Armagh valued at \$1,000 and 656½ acres, including Buena Vista Furnace, valued at \$10 per acre or \$6,565.³

A map of these lands was made in 1875 by Thompson McCrea for a fee of \$25, and at this time the Court found that Dr. Johnston's lands "cannot be parted and divided to and amongst all the heirs . . without injury to or prejudice to or spoiling the whole thereof." On December 15, 1875 the Court awarded both the house in Armagh and the 656½ acres along Black Lick Creek to Stephen A. Johnston, recognizing his claim "that the shares of the other heirs in the said real estate were paid to them in the division of the personal estate" of Dr. Johnston.⁴

Stephen Alexander Johnston, second son of Dr. Johnston, and one of the three partners who had been sold out by the Sheriff in 1850, thus came into complete possession 25 years later. Born June 30, 1820, he had married Elizabeth Elliott February 1, 1848 during the period when he and the McClellands were getting Buena Vista Furnace in operation. After the partners were sold out, he went to Butler County where he had a farm. Then about 1855 he returned to Armagh and went into the mercantile business with his father-in-law, Alexander Elliott.⁵

On February 17, 1900 Stephen A. Johnston and wife sold the Buena Vista tract of 681 acres, 63 perches, to Judge A. V. Barker of Ebensburg, Cambria County, for \$20,000.⁶

Stephen A. Johnston died October 23, 1904, aged 84 years. He was the principal stock holder and the last living charter member of the Farmers Bank of Indiana, organized in 1876.⁷

The Delano Coal Company

Judge Barker was apparently acting for the Lackawanna Iron and Steel Company in the purchase of the Buena Vista tract. A 1901 news item noted that "The Lackawanna Steel Company itself, through Judge Barker, has bought over 20,000 acres of

- 1 - Stewart, op. cit., I, 647-8
- 2 - Indiana County Register & Recorder's Office. Account Book # 6, pp. 206-7
- 3 - Ibid. Will Book # 4, p. 227. Inventory & Appraisement File Book I-J, item 10. Orphans Court Docket # 9, p. 375
- 4 - Orphans Court Docket # 9, pp. 375, 377, 378
- 5 - Stewart, op. cit., 647. Indiana Democrat, October 19, 1904. Indiana Times, October 26, 1904
- 6 - Indiana County Deed Book B67, pp. 319-20
- 7 - Indiana Democrat, October 19, 1904

coal land in Indiana and Cambria counties during the past year. Warren Delano and Moses Taylor, of New York, and Henry Wehrum, of Elmhurst, Lackawanna county, are the principal moving spirits in these latest developments." The mines and lands in and around Vintondale, Cambria County, were also purchased by the Lackawanna Iron & Steel Co.¹ Later the Delano Coal Company was organized as a subsidiary of Lackawanna Iron & Steel and title to the Buena Vista tract vested in it. Barker transferred title to numerous tracts in Indiana County on July 28, 1902, including a parcel designated as No. 1 conveyed to Barker from Stephen A. Johnston. The sale to the Lackawanna Coal & Coke Co. netted Barker \$141,717.²

Warren Delano III was the uncle of President Franklin Delano Roosevelt. He lived at his estate, "Steen Valetje," at Rhinebeck-on-Hudson in the summer and in winter at a house at the corner of Park Avenue and 36th Street, New York City.³

Elizabeth B. Drewry, Director of the Franklin D. Roosevelt Library at Hyde Park, New York, wrote the author "We have found a source stating that in May, 1920 Warren Delano III took his sisters, his children, his nephews and nieces to see his mines in Cambria County. It is possible that Franklin Roosevelt accompanied his uncle, but we have not been able to verify this." This presents another interesting speculation. Could it be that Franklin Roosevelt might have visited Buena Vista Furnace?

Earl E. Hewitt Sr. recalled in an interview with the author that Warren Delano often came to the Vintondale vicinity where he had some horses stabled. He usually stayed at a hotel in Johnstown.

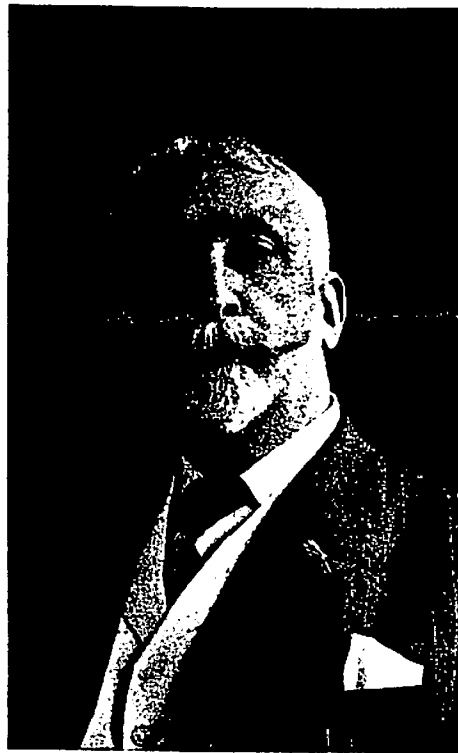
Mr. Delano had been educated at a military school in Brattleboro, Vermont, and graduated from Harvard University, Class of 1874. A lover of horses, he met a tragic death on September 9, 1920 when a spirited horse he was driving in a surrey to meet a group of friends at the railroad station in Barrytown, New York, bolted into the path of the locomotive. By a strange coincidence, Franklin D. Roosevelt that very same afternoon was officially notified at his mother's Hyde Park estate that he had received the Democratic nomination for Vice President of the United States.⁴

C. M. Schwerin succeeded to the presidency of the Delano Coal Co. after Mr. Delano's death. Financial troubles beset the company during the Depression. In 1940 Mr. Schwerin announced that the mines at Vintondale would not reopen, but the company was later reorganized and the mines reopened.⁵

Buena Vista Furnace Park Association

During the period of the Depression a group of civic-minded persons conceived the idea of leasing or purchasing the site of Buena Vista Furnace in order to pre-

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- 1 - Unidentified newspaper clipping "A Big Coal Deal" dated March 13, 1901 in Historical & Genealogical Society of Indiana County
 - 2 - Indiana County Deed Book B74, p. 375
 - 3 - Kleeman, Rita Halle, Gracious Lady: The Life of Sara Delano Roosevelt, New York, 1935. Pages 246-7
 - 4 - Ibid., 64, 274
 - 5 - Delano, Daniel W. Jr., Franklin Roosevelt and the Delano Influence, Pittsburgh, 1946. Pages 168-9



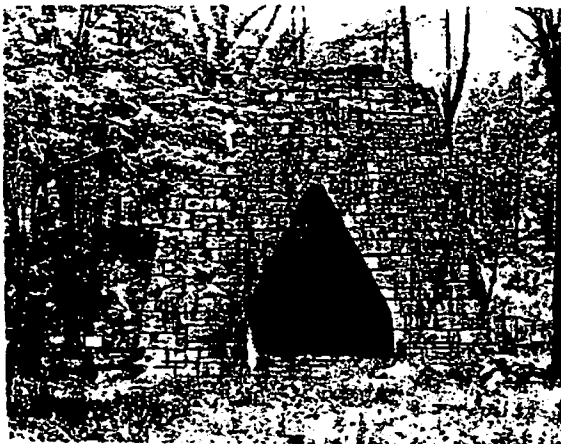
Warren Delano III
Courtesy Franklin D. Roosevelt Library



Close-up at furnace hearth.
David Johnston and son,
Robert Johnston. Courtesy
Zan Johnston, Armagh, Pa.

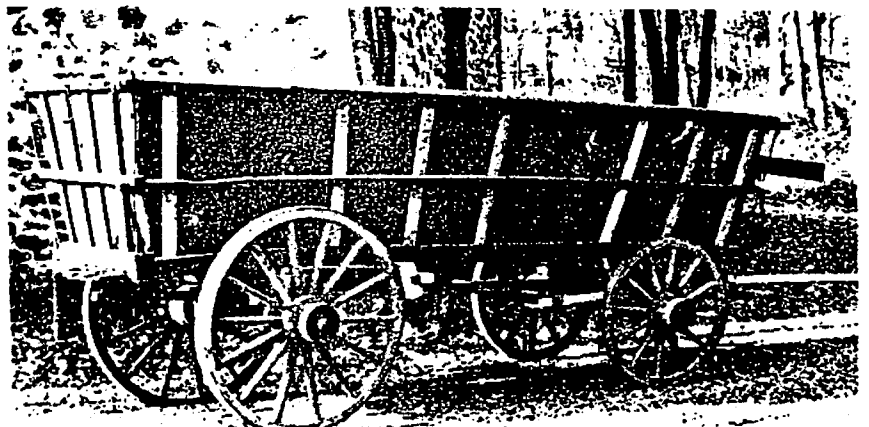


View of northeastern corner, showing eastern tuyere
beginning to collapse, 1968



View of hearth, 1968

*Charcoal was hauled in huge metal-lined wagons from the
"hearth" deep in the forest to the furnace bank where it was
dumped. Courtesy National Park Service, Hopewell Village NHS.*



serve the furnace as a historical landmark, and to create a public park. Various meetings in 1930 resulted in the election of Assemblyman Charles R. Griffith of Marion Center as president of the Association; A. A. Creswell, Johnstown, vice president; Mrs. G. M. Dias, Johnstown; secretary; and Royden Taylor, Indiana, treasurer. The following Board of Trustees were named: Miss Florence M. Dibert, Attorney John H. Stephens, Attorney Harry Doerr, M. D. Bearer, and John H. Waters, all of Johnstown. Charles M. Schwab, Loretto. Assemblyman Elder Peelor, Indiana. Earl E. Hewitt, Indiana. M. C. Stewart, Brush Valley. Postmaster Harry H. Wilson, Blairsville. John C. Thomas, Homer City. R. M. Mullen, Windber. State Senator Charles H. Ealy, Somerset. Rev. C. A. Waltman, Marion Center.

It was planned to later elect two additional trustees each from Clearfield, Jefferson, Armstrong, and Westmoreland Counties. Five additional vice presidents were also to be chosen.

At first Mr. Griffith was authorized to enter into negotiations for a lease on the land, but when application for incorporation was made before Judge J. N. Langham on January 5, 1931 the stated object of the "Buena Vista Furnace Park Association" corporation was

the purchasing, holding and rehabilitating of the old Buena Vista Furnace and maintaining the same for historical and educational purposes, and as a public park; and to this end to purchase and hold necessary lands . . and erect suitable buildings and improvements thereon.

The persons making application for the charter on behalf of the Association were Elder Peelor, C. R. Griffith, Thomas Pealer, A. A. Creswell, Mrs. G. M. Dias, Royden Taylor, and E. E. Hewitt.

The estimated cost of the project was about \$3,000 and it was planned to appeal to the public for funds. An effort was also to be made through Assemblymen Griffith and Elder Peelor to obtain State financial aid.¹

According to Mr. Hewitt, Henry Ford had made an effort at one time to secure Buena Vista Furnace for his Greenfield Village project. The proximity of the furnace to the railroad would have facilitated dismantling and loading on railroad cars. Perhaps it was Henry Ford's interest in the furnace which sparked the movement to acquire the furnace and keep it in the local area.

Mr. Hewitt tells us the Association was unable to acquire Buena Vista Furnace in spite of very commendable efforts, because of litigation involving the Delano Coal Company which at that time precluded obtaining a clear title. Probably another factor was that in 1930-31 the Depression had gripped the entire nation and economic conditions would have made the job of raising funds almost impossible.

Gift to the Historical Society of Indiana County

Eventually economic conditions improved and the tangled affairs of the Delano Coal Co. were straightened out. Mr. Hewitt was later elected to the General

1 - Clippings from Indiana Evening Gazette in Historical & Genealogical Society of Indiana County. Undated; about December 1930 and January 1931.

Assembly himself, and continued to take an interest in the Buena Vista Furnace park project. To Mr. Hewitt belongs a great deal of the credit for negotiating with the officials of the Delano Coal Co. the transfer and gift of a 5.16-acre tract, including the furnace, to the Historical & Genealogical Society of Indiana County.

The Deed was prepared November 1, 1957 and states that the Delano Coal Co., organized under the laws of the State of New York, and having its principal place of business at Great Neck, Long Island, New York, has authorized Francis T. Schwerin, Vice President of the company, to execute, acknowledge, and deliver the Deed. Gas, oil, coal, and mining rights were excepted and reserved. On November 5 Mr. Schwerin appeared in person before Mrs. Sylvia P. Hagney, Notary Public of Indiana, Pa. to formally conclude the transaction. The Deed was recorded the next day, November 6.¹

Development and present condition of the furnace site

When the Historical Society acquired ownership of Buena Vista Furnace, it was found that the site was, in effect, an island - very difficult of access even on foot, and impossible by vehicle, being cut off by Black Lick Creek on one side and by the Pennsylvania Railroad, located in a deep cut on the other side. For many years the only way to get to the furnace was to literally crawl or clamber down one side of the railroad cut and up the other.

There had once been an iron bridge over Black Lick Creek, giving direct vehicular access to the furnace area over old Route 56, and another vehicular bridge over the Pennsylvania Railroad cut, but these lifelines were both severed in 1931 when Route 56 was changed to its present location and the bridges were removed. Long before the days of the iron bridge, there appears to have been a covered bridge over Black Lick Creek at the same point.²

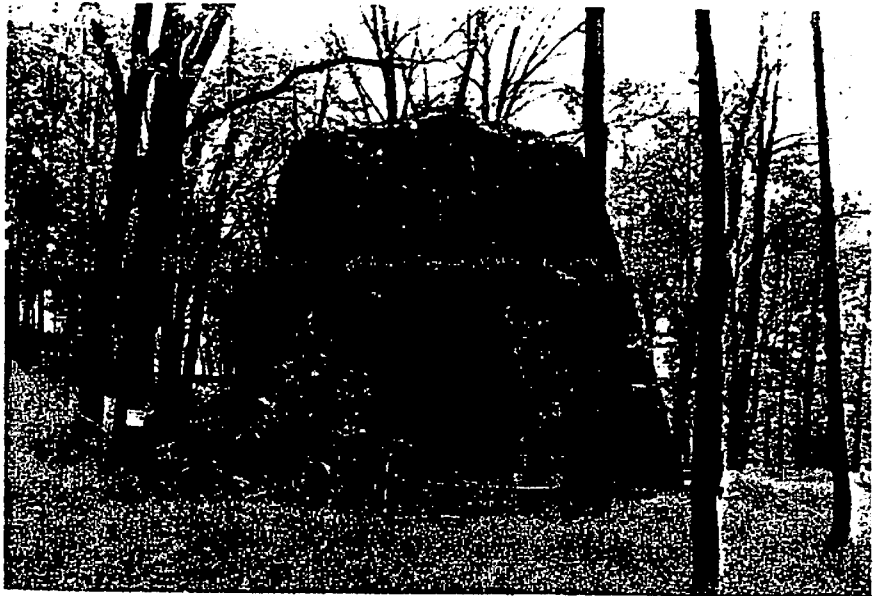
Beginning in the summer of 1965 and continuing into 1966-67, a work-training project, financed by Federal funds under Title V of the Economic Opportunity Act, and directed by the Indiana County Public Assistance Office, made it possible to accomplish many improvements. These included the clearing of a heavy growth of brush and the selective cutting of excess trees; the dozing of an access road under the present Route 56 bridge; the construction of pit toilet facilities, using materials purchased with funds donated by the Soroptimist Club of Indiana; construction of picnic tables with funds provided by individual donors whose names are on each table; and the construction of an all-weather closed picnic shelter with fireplace at one end.

It was also found, when the brush had been cleared away, that a portion of the old Route 56 macadam road leading from the furnace was still in fair shape.

1 - Indiana County Deed Book 467, page 243

2 - The Free Press of Indiana reported February 16, 1832 that a bridge over Black Lick Creek on the road from Indiana to Armagh had been washed out.

Collapsed northwestern corner
and western tuyere, 1968



View from southwest, 1968

View of water spillway from
furnace, 1968



In November 1965 John B. Lukens, Regional Architect of the Northeast Region of the National Park Service, and Earl J. Heydinger, Supervisory Park Historian at Hopewell Village National Historic Site, visited Buena Vista Furnace to advise and assist in preparing plans for the restoration and stabilization of the furnace stonework. A mimeographed copy of Mr. Lukens' recommendations was made generally available to Historical Society officers and members. Unfortunately, only one of the recommendations - the removal of roots, vegetation, and earth from the top of the furnace - has been accomplished; and at present the condition of the furnace is slowly worsening. Not only has the west-northwestern side and western tuyere collapsed, but now the eastern side and eastern tuyere are in the beginning stages of collapse(see photos).

There is also much other unfinished work. A right-of-way over the old mining road from Route 56 should be secured and petitions should be circulated to place the road under township maintenance. Until a grade crossing over the Pennsylvania Railroad tracks is secured, it is illegal for any vehicle to cross the tracks without the railroad's permission. The access road from the furnace to the railroad tracks is actually a dead-ender. There is no supply of safe drinking water. A guard rail is needed on the side of the access road next to the railroad tracks. Grading and drainage ditches and surfacing(if possible with amesite, or at least gravel stones) are needed on all roads.

It would also be desirable to prepare and place some signs and visual aids, including pictures, maps, and dioramas to interpret the history and meaning of the site to the visiting public. Without these, many visitors will go away not understanding what they have seen.

More than anything else at the present time in 1968, it is the sad, neglected condition of the 121-year-old Buena Vista Furnace which dominates the scene. It stands mutely appealing for help, slowly dying, the last and only one surviving of four charcoal iron furnaces of its period which were once located in Indiana County. The truth is that old Buena Vista Furnace has not many more years to live. Unless something is done - and soon - it will pass into the realm of memory and the Historical Society will be able to point only to the "SITE OF BUENA VISTA FURNACE" - a heap of fallen stones.