

Bluegrass Powdermen: A Sketch of the Industry

by Gary A. O'Dell

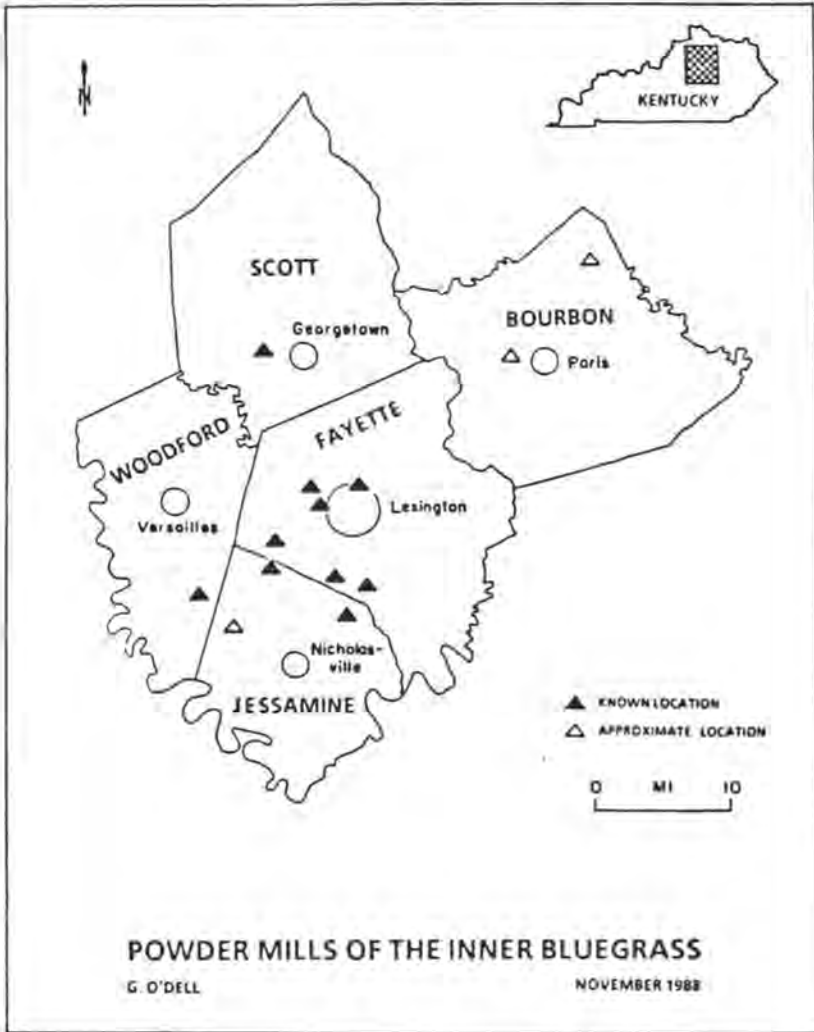
The manufacture of gunpowder in Kentucky was one of the most important industries in the state from the early pioneer days through the War of 1812. The most important ingredient, saltpeter, was and still is abundant in the caves and rockshelters of the region, and its extraction was a relatively simple matter. The making of the powder, however, was a skilled and dangerous craft, and few were the mills that did not at one time or another suffer a devastating explosion. Even so, the profit to be made outweighed the risk.

Lexington, Kentucky, was centrally located to the pioneer saltpeter-producing cave region and, in the earliest days of the state, was, with the surrounding communities of the Inner Bluegrass, also the center of population and commerce. Hence, the Bluegrass became the focal point of gunpowder manufacture in the state and supported a number of powder mills. Saltpeter was transported to Lexington for use in the local mills and for export to factories in the East, primarily to the Du Pont establishment in Delaware. Fortunes were made and lost with the rise and fall in saltpeter prices, reflecting the fluctuating demand for powder.

Gunpowder was one of the essential commodities of the pioneer era, necessary to defend against enemies and to secure meat for the table. As the Bluegrass region became more heavily settled, the primary use of black powder was for sport. Occasional hunting for food continued, of course, particularly in the

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rural areas. The greatest demand for powder was occasioned by war, when armies and artillery had to be supplied.

I

The first recorded example of gunpowder made in Kentucky is probably the small quantity produced by Daniel Boone and others at Boonesborough in the fall of 1777. This act was prompted by a critical shortage at a time when Indian hostilities were at a peak. Previously, all powder had been transported with

difficulty from the East across the Appalachians or down the Ohio River; with few exceptions this procedure endured for at least another decade. In one of these exceptional cases, the local manufacture of powder was again required at Boonesborough by a perilous shortage in 1780. Using saltpeter obtained from nearby Payton Cave (present-day Adams Cave in Madison County), the slave Monk Estill is credited with saving the day by making a supply of powder for the fort and Estill's Station. Monk is reported to have learned this skill in the Greenbrier Valley of Virginia. For this and other valuable services to the inhabitants he was later given his freedom.¹

About 1790, during a more peaceful time in the Bluegrass, William and Thomas Rogers, to save their corn crop from the squirrels, "concluded they could make gunpowder if they could get salt peter." William's son Thomas, born in 1782, recalled how

father and Uncle Thomas . . . gathered up the dry dirt from under old houses and tried their hands to make saltpeter. They succeeded to make two or three pounds. Uncle had been in a powder mill once in Virginia, so they made a trial and after several days' experimenting, got powder. This was the manner in which father came to be a powder maker. About this time, saltpeter began to be found in the dry caves in the mountains, and father set up in the powder making business.²

Apparently, the first settlers of the Kentucky region made up occasional small lots of powder for their own use, though only a few individuals possessed the necessary skill and knowledge. This practice seems to have continued in the rural areas of the state even into the twentieth century, as the late Thomas Owens of Rockcastle County related to the author in 1971. Tom had migrated to Rockcastle County about 1900 as one small child of a dozen in the Owens family wagons. The Owens house stood above Crooked Creek. Behind it, up a ravine a few hundred yards, was a saltpeter cave, never mined commercially because of its small entrance. Tom told of a local Civil War veteran named Saxton who until about 1910 had dug saltpeter to make his own powder from the Owens Saltpeter Cave.³

¹Angelo George, "Monk Estill and the Gunpowder Crisis at Fort Boonesborough," *Journal of Spelean History* 21 (1987): 40-47.

²Reminiscences of Thomas Rogers, 1871, "Rogers Family," Family Files, Kentucky Historical Society.

³Personal communication with Thomas Owens, 1971.

II

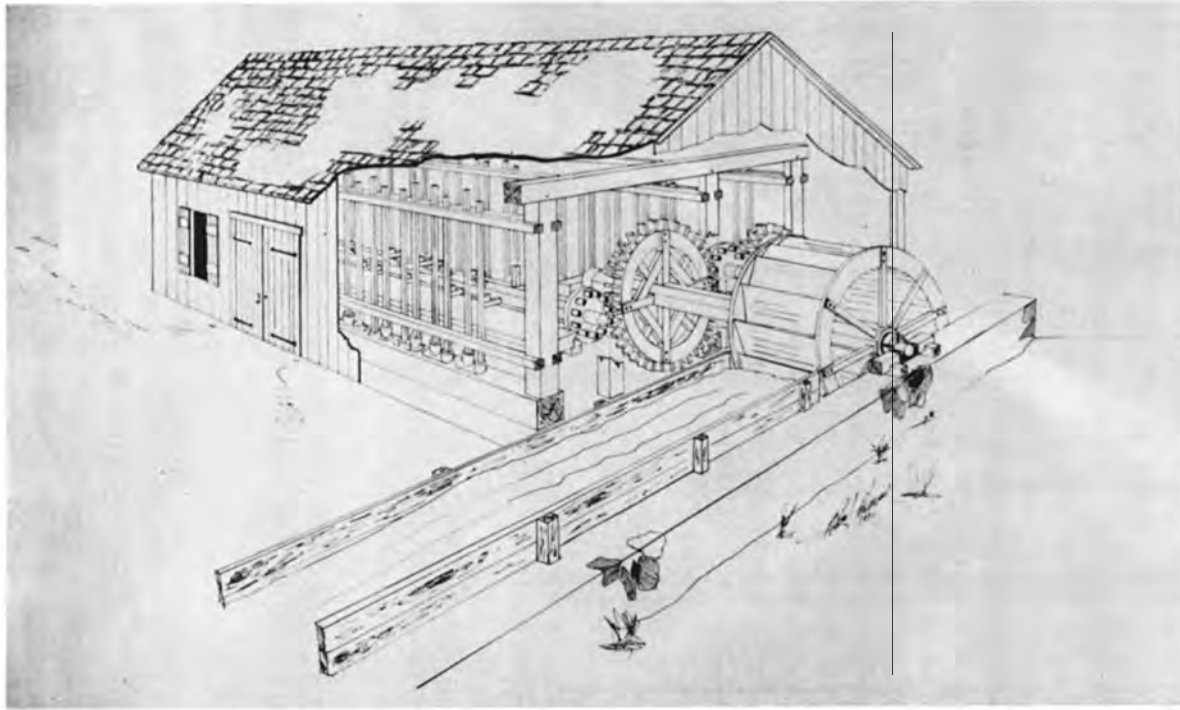
The first commercial powder mill in the state was probably that of Richard Foley in Lexington. In May 1793, he advertised in the *Kentucky Gazette*: "I have for sale a quantity of powder . . . of a superior quality, by the large or small quantity, at 3s 9 per lb. with an allowance to those who purchase a large quantity." Foley's powder establishment was located near the present intersection of Harrodsburg Road and Military Pike, just south of Lexington, near the former community of South Elkhorn. Although Richard died of measles less than a year later, the Foley family carried on the trade and continued to advertise in the Lexington paper. The French traveler Michaux reported an operating powder mill at Lexington in 1802; possibly he referred to the Foley mill adjacent to the city. By 1803, the mill was being operated by Richard's son John, and the price of powder had dropped to two shillings per pound. In the following year, his gunpowder was reported available in Lexington, stocked by the merchant Lewis Sanders in his store.⁴

William Rogers, who had sought the means to kill squirrels, found powder making at his place on Stoner Creek in Bourbon County to his liking, but it was not a full-time occupation for him. His son recalled:

[E]very summer after the corn was laid by and harvest over we would make powder a month or so and attend at the courts to sell it. He generally took me along to retail it as he had other business to tend to. Along came a man, smoking his pipe and stooped down to look at the powder. I saw the ashes fall from his pipe. I grabbed the pipe, and in my haste, ran the stem in his mouth. He seemed to be much offended till I showed him the danger he was in. . . . This was a pretty profitable business at that time and when [father] concluded to move to Ohio [in 1797], he made a couple of bags full, 75 pounds each, and packed them on a horse. When we came to Chillicothe I sold them for one dollar and twenty-five cents a pound to James and McCoy, merchants.⁵

⁴Lexington *Kentucky Gazette*, 11 May 1793, 8 November 1803, 21 February 1804; F. A. Michaux, *Travels West of the Allegheny Mountains in the States of Ohio, Kentucky and Tennessee* (1803), in Reuben G. Thwaites ed., *Travels West of the Alleghenies* (Cleveland, Ohio, 1904), 201.

⁵Reminiscences of Thomas Rogers.



A stamp mill of the colonial era, used in Kentucky powder mills throughout the antebellum period. Most of the powder mill machinery in the Bluegrass was turned by animal power. The main Trotter mill in Lexington, however, was water-powered, much as shown here. Drawing courtesy of Robert A. Howard.

William Berry, one of the first settlers in the region, erected yet another powder mill in the spring of 1803 “on the fourth fork of Elkhorn, five miles from Lexington. . . .” The Berry mill was not actually on a fork of Elkhorn itself but instead near Hickman Creek; his farm was located along the Bates Creek Pike south of the present Man O’War Boulevard. In Jessamine County, near the Foleys on the Fayette side, was the Miller homeplace, where Anderson Miller was reported to have made powder in 1805. The finished product was hauled by wagon to Louisville, then by flatboat to New Orleans. For Anderson this one-time venture of his youth netted him sufficient funds to finance land acquisition and his marriage to Elizabeth Bell of Fayette County.⁶

By 1808, Neal McCoy reportedly made powder in northern Lexington. McCoy and his wife Nancy had formerly been residents of the Brandywine valley of Pennsylvania, a region with a flourishing gunpowder industry. With a powderman he had known there, named Neill or O’Neil, McCoy began to make gunpowder in Lexington. It was to prove a good time to enter the trade.⁷

III

The increasing tension between the United States and Great Britain greatly interested entrepreneurs. As the conflict loomed, prices for saltpeter caves, saltpeter, and finished powder began to climb. These prices escalated rapidly during the British blockade of the American coast.

Consequently, Elijah Foley dusted off and repaired the idle equipment of the family mill and advertised that once again the Foleys were making gunpowder: “Merchants and others who wish to deal in that article, will find it in their interest to apply to the subscriber. . . .” The prosperous Lexington merchants Samuel Trotter and his brother George advertised throughout the latter part of 1811 that they were buying saltpeter at their store. By

⁶Lexington *Kentucky Gazette*, 10 May 1803; William H. Perrin, *History of Fayette County, Kentucky* (Chicago, 1882), 540, 886; Bennett H. Young, *History of Jessamine County, Kentucky, From Its Earliest Settlement to 1898* (Louisville, 1898), 161-63; John B. Sneed, *History of the Kentucky Penitentiary* (Frankfort, 1860), 85-86.

⁷William S. Webb, “Old Millstones of Kentucky,” *Filson Club History Quarterly* 9 (1935): 218; Lexington *Herald*, 29 September 1901.

the following year a gunpowder factory was in full operation on Samuel's farm just a mile and a half west of Lexington on the Old Frankfort Pike. Later, in 1813, enterprising Daniel Bryan of Lexington, a gunsmith, wrote a letter to E. I. du Pont in Delaware, saying he "follow[ed] the business of Making gunpowder on a small scale." Bryan proposed that he and du Pont should become partners as "it will throw Nearly all the powder business in our hands." Du Pont's reply is unavailable, and little else is known about Bryan's operation.⁸

The United States Census for 1810, when U.S.-British relations were worsening, had listed fourteen gunpowder mills in five counties of the Inner Bluegrass. Fayette County was reported to contain five of these mills, though present research, lacking primary documentation, indicates only the McCoy mill for that date. As war approached, Robert Crockett in Jessamine County and Thomas Turnham in Woodford made and sold gunpowder, as did Bourbon County's John Tucker and Benjamin Bedford at their respective mills. In Scott County the Johnson paper mill at Great Crossing was converted to powder making. Other powder mills of the period indicated by the census figures have not yet been identified. The number of establishments continued to increase as war progressed.⁹

By far the most successful of the proliferating Bluegrass powder operations was that of Samuel and George Trotter, Jr. The Trotter mill had secured contracts with the Ordnance Department of the federal government to supply seventy thousand pounds of gunpowder in each of the war years of 1813 and 1814. In the war itself George Trotter distinguished himself as an officer. He commanded a company of Kentucky volunteers in the 1812 campaign against the Mississinewa Indians; the following

⁸Lexington *Kentucky Gazette*, 12 November 1811; Lexington *American Statesman*, 20 July 1811 *et seq.*, 10 September 1811 *et seq.*; Articles of agreement, 28 August 1812, Fayette County Deed Book 10, Fayette County Courthouse Annex, 74; Daniel Bryan to E. I. du Pont de Nemours, 22 July 1813, Group 5, Series A, Longworth Manuscripts, Hagley Museum and Library, Wilmington, Delaware.

⁹Tench Coxe, comp., *A Statement of the Arts and Manufactories of the United States of America for the Year 1810* (Philadelphia, 1814), 125-26; Young, *History of Jessamine County*, 51; G. Glenn Clift, comp., *Kentucky Obituaries, 1787-1854* (Baltimore, Md., 1977), 9; William H. Perrin, *History of Bourbon, Scott, Harrison, and Nicholas Counties, Kentucky with an Outline Sketch of the Bluegrass Region by Robert Peter* (Chicago, 1882), 87; Lexington *Kentucky Gazette*, 15 December 1812; Ann Bolton Bevins, *A History of Scott County — As Told by Selected Buildings* (Georgetown, Ky., 1981), 263.



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Matthew Jouett portrait of Dr. Samuel M. Brown, one of the first major saltpeter entrepreneurs. Brown conducted a serious scientific investigation of the occurrence of nitrates in the caves and rock shelters of Kentucky.

year, as acting brigadier in command of a regiment of Kentuckians, he helped defeat the British forces under Proctor at the Battle of the Thames in Canada. Powder from the Trotter mill was used in both these exploits.¹⁰

IV

During the war boom, saltpeter advertisements blossomed in the regional newspapers. Often, three or four ads appeared in a single issue, with each claiming to offer “the highest price in CASH.” In the growing saltpeter trade, Lexington men were prominent and owned several major saltpeter caves. Yet, the primary niter-producing regions of the state were centered around Rockcastle and Pulaski counties to the south, including present-

¹⁰Contracts of U.S. Ordnance Department and firm of Samuel and George Trotter, 5 April 1813, 2 April 1814, Record Group 156, Entry 78, Contracts for Ordnance and Ordnance Supplies, 1813-1828 (copy), National Archives; *Lexington Reporter*, 18 October 1815; “General Trotter’s Tomb,” *Kentucky Historical and Genealogical Magazine* 1 (1899): 21-25.

day Jackson County, and the Mammoth Cave region to the west. Even these distant caves had a connection to Bluegrass powdermen. Samuel Brown, M.D., of Lexington for a few years before the war had owned one of the best producers, Great Saltpeter Cave in Rockcastle County. In other hands, Great Saltpeter and Mammoth Cave were major suppliers of the saltpeter used to make the powder consumed by the 1812 war.¹¹

During the early part of the conflict, Mammoth Cave was purchased by Charles Wilkins, also of Lexington, and by Fleming Gatewood. Wilkins was a major shipper of saltpeter in Kentucky, and contracted most of his supply to the Du Pont mills in the East. Wilkins previously had purchased saltpeter in the marketplace at Lexington. In November 1809, he had written to the Du Pont purchasing agent in Philadelphia, Archibald McCall, to complain of the adulteration with sand and gravel of the saltpeter he had bought and his inability to discover who was cheating him. Wilkins thus provided a capsule description of the small-scale, rural saltpeter miners of the time: "They have been so numerous & generally living in caves and mountains on our frontiers that I should have no knowledge of them again even if they were to attempt to impose on me a second time."¹²

Competition was fierce for the existing saltpeter supply. Testimony given rather maliciously by Gen. James Wilkinson and muckraking evidence supplied by Wilkins helped implicate the Brown family, including Samuel Brown, as traitors in Aaron Burr's alleged conspiracy to overthrow the government of the nation. A competitor may indeed have been eliminated, for Dr. Brown left Lexington in 1806 and did not return for more than a dozen years.¹³

¹¹Lexington *Reporter*, 9 January 1813 *et seq.*; Angelo George, "Saltpeter and Gunpowder Manufacturing in Kentucky" *Filson Club History Quarterly* 60 (1986): 189-217; idem, "Interim Chronology of Historic Events at Great Saltpeter Cave, Rockcastle County, Kentucky," *Journal of Spelean History* 22 (1988): 7-11.

¹²Charles Wilkins to E. I. Du Pont de Nemours & Co., 27 November 1809, Group 3, Series A, Longworth Manuscripts.

¹³Burton Faust, *Saltpeter Mining in Mammoth Cave, Ky.* (Frankfort, 1988; orig. pub. 1967); Angelo George, "Pre-1815 Demise of the Saltpeter Industry, Kentucky," *Journal of Spelean History* 22 (1988): 15-20; Harold Meloy, *Mummies from Mammoth Cave* (Shelbyville, Ind., 1977), 22; James D. Padgett, "Letters of Doctor Samuel Brown to President Jefferson and James Brown," *Register of the Kentucky Historical Society* 35 (1937): 107.



Courtesy Hagley Museum and Library

Charcoal-making in large covered pits was a dangerous occupation, requiring great care to produce a quality product. The charcoal was used in gunpowder production and to smelt iron ore. Pictured is a charcoal pit in North Carolina.

Wilkins could not achieve a monopoly on saltpeter, however, for the niter-bearing caves of the state were numerous. Lexington was the marketplace for the saltpeter produced by the rural folk in their caves and Wilkins was not the only large buyer. The firm of (James) Maccoun & Lane was perhaps his chief competitor, and landed separate contracts with Du Pont. These volume buyers sent saltpeter up the Ohio River in shipments generally of a few tons each; in a year this might amount to more than fifty thousand pounds per shipper. Such large purchasers as Wilkins and Maccoun were able to fix the price of saltpeter, and drove it down to an artificially maintained low by war's end.¹⁴

Because this bulk saltpeter was almost exclusively destined for the eastern market, the local powdermen depended on the smaller mining operations. However, the low prices for refined saltpeter discouraged those who mined it, and a decreasing volume of saltpeter came to the Lexington market. The large buyers began

¹⁴See extensive correspondence, 1811-1815, Charles Wilkins to Archibald McCall, James Maccoun to Archibald McCall, Archibald McCall to E. I. duPont, Group 5, Series A, Longworth Manuscripts.

to seek out the miners at the caves to make their purchases even before it reached market. Despite the increasing scarcity, the price slowly dropped from a peak in early 1814. After the end of the war, a great many of the saltpeter producers and powder makers went out of business. Not only were there no longer the demands of wartime, but the mine operations had virtually ceased throughout the state because they were no longer economically feasible. The price of domestic saltpeter continued to drop as cheap saltpeter from India again entered the nation's commerce. Also, English powder of high quality once more could be imported, and at prices far lower than those at which most American powder makers could effectively compete.¹⁵

V

After the war, most of the Kentucky powder mills were simply not heard from, for many had quietly converted their business into something more profitable, while some others changed hands. For example, the Foley operation did not long survive. In April 1815, a notice appeared in the *Kentucky Gazette* stating that the trustees for Elijah Foley cautioned the public not to deal with him due to his insanity. The Foley mill ceased operation. Preliminary investigation suggests that it was taken over by John Higbee, a prominent South Elkhorn businessman who began advertising his powder in 1816.¹⁶

A few mills lasted longer. The powder mill operation of Samuel and George Trotter, Jr., survived the difficult transition after the war and continued to operate successfully despite the 1815 death of George Trotter. His older brother Samuel had remained in Lexington during the war and made great quantities of gunpowder. No doubt Samuel was involved, at least as advisor, when in 1819 his uncle George Trotter, also a prosperous Lexington merchant, became a partner in a new powder mill operation south of town (on what is currently called the Nicholasville Road). This manufactory, known as Eagle Powder Mills, was located near Higbee Mill Road. It was owned by a

¹⁵*Ibid.*; Anthony Biderman to E. I. du Pont, 1815, in B. D. du Pont, *Life of Eleuthere du Pont from Contemporary Correspondence* (Newark, Del., 1926), 90-112; George, "Demise of the Saltpeter Industry," 15-20.

¹⁶Lexington *Kentucky Gazette*, 17 April 1815; "Higbee Family," Family Files, Kentucky Historical Society; Lexington *Kentucky Gazette*, 15 April 1816.

partnership consisting of William Roman (Richard Foley's son-in-law) as the principal partner along with George Trotter and Trotter's son-in-law John Tilford. In 1820, the original Trotter mill reported production of about 125,000-140,000 pounds of gunpowder annually, while the Eagle mill had made about 45,000 pounds. Samuel Trotter estimated that his mills had the capacity to produce at least double these amounts, but competition from English powder after the war reduced his markets.¹⁷

In 1818, a new powderman, the Reverend Spencer Cooper, began production in Lexington. A devout Methodist, he purchased land adjacent to Samuel Trotter's farm and mill and immediately began to make and sell gunpowder. In a short time the minister had an annual output of nearly fifty thousand pounds, providing him with a net income of about ten thousand dollars, a very comfortable sum in those days. Certainly, the Reverend Mr. Cooper's activities must have been stiff competition for his neighbor Samuel Trotter.¹⁸

In Scott County that year, James Johnson landed an Ordnance Department contract for thirty thousand pounds of gunpowder to be produced at his Great Crossing mill. The Johnson mill had been in operation during the war, directed by James's brother William. Turned back into a paper mill after the fighting, it was converted yet again into a powder mill. Like his fellow powderman George Trotter, Jr., James had also seen action at the Thames. As a lieutenant colonel in the regiment of his brother Richard M. Johnson (later vice-president of the United States), James led a mounted battalion which had ". . . charged through the British lines, and facing about in their rear, captured a large number, and put the rest to flight." It is likely that powder from Johnson's mill, as well as from Trotter's, was used at this battle.¹⁹

¹⁷Lexington *Observer & Reporter*, 18 October 1815; Lexington *Kentucky Gazette*, 13 August 1805, 14 May 1819; "Foley," Family Files, Kentucky Historical Society; Angelo George, comp., "United States 1820 Federal Census of Manufactures, Kentucky Gunpowder and Saltpeter," in author's possession.

¹⁸Gary A. O'Dell, "The Spencer Cooper Powder Mill," *Journal of Spelean History* 22 (1988): 12-14.

¹⁹Contract of U.S. Ordnance Department and Col. James Johnson, 1 April 1818 (copy), National Archives; Bevins, *A History of Scott County*, 263; Ebenezer Hiram Stedman, *Bluegrass Craftsman: Being the Reminiscences of Ebenezer Hiram Stedman, Paper Maker, 1802-1885*, eds. Frances L. D. Dugan and Jacqueline P. Bull (Lexington, 1959), 71-72; J. B. May, "The Johnson Family," *Kentucky Historical and Genealogical Magazine* 1 (1899): 26-35.

Bluegrass powder mills, however, declined sharply; James Wilson's 1825 operation on Clear Creek in Jessamine County was part of a dying industry. By this time the production of gunpowder had become less and less profitable and the number of powder operations in the state had decreased. Competition from inexpensive European powder after the war had decimated the powder mills; the Kentucky saltpeter miners had been put out of business long before, as the price-fixing practices of the large buyers had made their profession uneconomical. Seldom again was saltpeter mined commercially in the state because, ironically, that imported from India was less expensive than saltpeter refined in Kentucky and shipped to the eastern powder mills. Nor was saltpeter so easily procured from the caves as before — this naturally renewable resource had been depleted by careless practices of the miners, eager to make a fast profit.²⁰

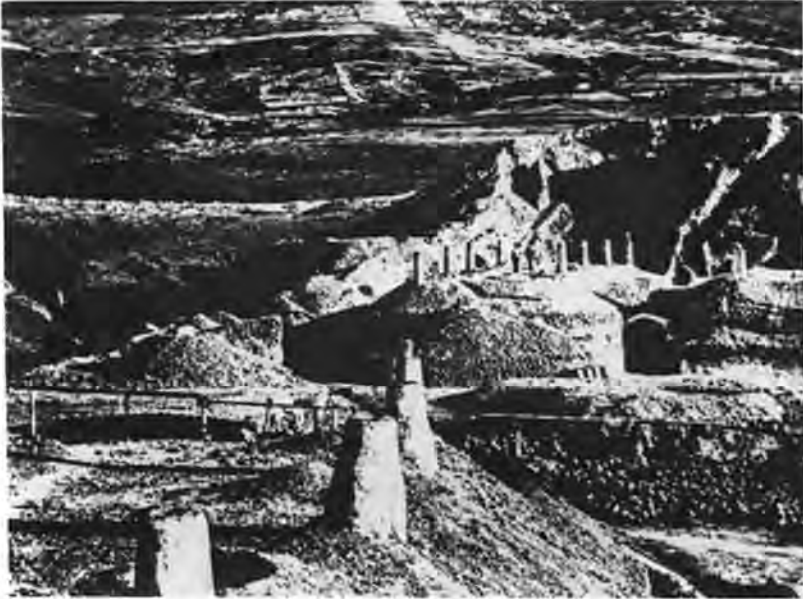
VI

Even during the 1812 war, the other constituents of gunpowder, sulfur and charcoal, were cheap and readily available for the laborious powder-making process. The powder makers preferred to use sulfur imported from Sicily, usually refined in France, because domestic sources were very limited. During the war apparently only crude sulfur was to be had, as Du Pont records show that the company was then required to refine its own sulfur. This procedure involved melting the raw sulfur in large pots to settle out impurities. Charcoal was usually purchased from local burners, whose trade was both skilled and hazardous.²¹

Though millstones were used in contemporary grist mills of the Inner Bluegrass, Kentucky gunpowder mills avoided their use as a safety precaution. All moving parts were made of wood because machinery of metal and stone could produce a spark to touch off a devastating explosion. Large mortars and pestles were connected in series to a camshaft for grinding and mixing in quantity; variations on these "stamp mills" had been in use in Europe since the fourteenth century. While some mills were turned by

²⁰Young, *History of Jessamine County*, 53; George, "Demise of the Saltpeter Industry," 18; Roy M. Boatman, "Indian Saltpetre," 1958 ms., Hagley Museum and Library.

²¹Alfred du Pont, "Refining Sulfur, 1812-1815," *Du Pont Co. Letter Book* (26 March 1846), 215.



Courtesy Hagley Museum and Library

A Sicilian sulfur mine. The sulfur mined in the volcanic region of the island usually contained 12-13 percent of impurities and required additional refining. When not interrupted by war, Sicilian sulfur processed in France was available at low cost. During the War of 1812, the British naval blockade cut off the refined sulfur but evidently did not interfere with shipment of the crude sulfur directly from Sicily. American powder makers generally were required to perform their own refining.

water, apparently most of the Bluegrass powder mills were powered by horses.

The materials were brought together at the powder mill and combined in a variation on the standard ratio of 75 percent saltpeter, 12.5 percent sulfur, and 12.5 percent charcoal. Since the development of black powder manufacture, powder makers have experimented with combinations of the ingredients; generally the proportion of charcoal was slightly increased. The *Edinburgh Encyclopedia* for 1823 gives a proportion for European powder at 75.4 percent saltpeter, 11.8 percent sulfur, and 12.8 percent charcoal. Each would be separately reduced to fine particles beforehand in a pulverizing machine, then the saltpeter would be placed in the mortars alone to begin the manufacturing process. One at a time, the other ingredients would be added, along

with a little water periodically to aid in the mixing and to reduce the danger of explosion. The combined materials were thus reduced to a paste, which was then pressed through a grainer, in a process known as “corning,” to produce specified particle size. Powder of finer grain, which burned rapidly, was preferred for small arms, while a much larger grain size was used in cannon.²²

The damp particles were then tumbled in a glazing barrel to round the powder grains, so that stored gunpowder would not become hardpacked in containers. The glaze barrels were made of wood and tumbled about two hundred pounds of powder at about forty revolutions per minute. This operation was described as taking “about six hours, but varied according to the taste of the purchaser, some markets preferring powder with a very high gloss, and others having it dull.” This operation produced a great deal of dust and was therefore rather hazardous. Next, the powder was destined for the “drying house.”²³

Earlier, small-scale producers had simply spread the damp powder out on long tables outdoors to dry in the sun, but this was a long process and limited the quantity that could be made. In a procedure more typical of Bluegrass powder-making, a drying house was heated to a high temperature by a stove fired from the outside. The fire was carefully and thoroughly extinguished before trays of powder were brought inside and placed on shelves. During exceptionally fine weather, some operations equipped with drying houses may have used outdoor tables instead, for the sun was free and the process far less hazardous.

The finished powder usually was packaged in barrels for sale by wholesalers and retail merchants. The sizes used were twenty-five pound, fifty-pound, and the standard hundred-pound keg. The Trotter contracts with the military called for “. . . good and substantial barrels, containing one hundred pounds of powder in each barrel. . . .” Copper hoops were to be furnished by the Ordnance Department. For local customers desiring only small

²²Robert A. Howard and E. Alvin Gerhardt, Jr., *Mary Patton: Powder Maker of the Revolution* (Rocky Mount, N.C., 1980), [10-14]; *Edinburgh Encyclopedia*, 18 vols. (London, 1823), 10: 188.

²³Henry Wilkinson, *Engines of War* (London, 1841), 170; Lamot du Pont, “Glazing of Gunpowder,” n.d., Acc. 384, Box 29, Series B, Technical Papers, Hagley Museum and Library.



The Filson Club

James Johnson, a hero of the Battle of the Thames, later assumed operation of the Johnson family powder mill in Scott County. Converted back and forth from paper to powder operations, the mill produced gunpowder in the period from 1812 to 1820.

quantities for their personal use, one-fourth to one pound of powder was weighed out on papers which were then folded and sealed. It was also common for customers to bring their own containers to be filled.²⁴

VII

In all its steps, the making of gunpowder was an extraordinarily dangerous business. John Tucker of Bourbon County died in 1809, when possibly as much as seven thousand pounds of gunpowder exploded at his mill five miles from Paris. In 1812, Thomas Turnham was killed when his Woodford County powder mill blew up. A minor explosion occurred at the Trotter mill on Old Frankfort Pike in 1818, and in 1820 there were two explo-

²⁴Howard and Gerhardt, *Mary Patton*, 18; Contracts of U.S. Ordnance Department and Samuel and George Trotter, 1813, 1814, National Archives.

sions at the Eagle mill, the latter of which destroyed a building and took the life of superintendent James R. Deuerson. Similarly, the Reverend Mr. Cooper was plagued by explosions at his Versailles Road mill. In 1824, 1833, and again in 1835, blasts at the Cooper establishment resulted in injuries and fatalities. Usually the larger operations, such as Trotter's and Cooper's, employed slaves; thus owners were subjected to less personal risk.²⁵

The vibrations of many of these explosions, powerful and near to Lexington, shook the city's buildings and made the citizenry understandably nervous. The danger was emphasized in 1835 when, during an attempted conversion of the abandoned Trotter facility to a grist mill, the drying house exploded. The mill was completely destroyed. Though elaborate precautions had been taken to clean away the remaining gunpowder dust that permeated the structure, even to the extent of tearing up the flooring, a small amount had been missed. Two prominent citizens, one of whom died a few days later, were maimed. Not long afterward, a resident of Lexington wrote to the paper and complained about the large quantities of gunpowder then being stored in the wholesale mercantile houses of the city. A controversy was touched off, and finally a representative of the Lexington fire-fighting force declared that his men had no intention of combating a blaze in any building known to contain large amounts of powder.²⁶

VIII

Present research indicates that by 1835 there remained in Fayette County only two powder factories. These were the Spencer Cooper mill and the Neal McCoy mill. The Trotter mills had been abandoned two years previously upon the death of Samuel Trotter in the severe Lexington cholera epidemic of 1833. Disease also affected one of Trotter's competitors. Spencer Cooper suffered a series of strokes that resulted in his death in 1839 and in the closure of his factory.²⁷

²⁵Clift, *Kentucky Obituaries*, 9; *Lexington Kentucky Gazette*, 15 December 1812, 10 April 1818, 10 December 1820, 3 May 1824; *Lexington Observer & Reporter*, 28 February 1833, 3 June 1835.

²⁶*Lexington Observer & Reporter*, 18 March 1835; *Lexington Kentucky Gazette*, 3 October 1839.

²⁷O'Dell, "Spencer Cooper Powder Mill," 14; *Lexington Kentucky Gazette*, 14 February 1839.



Courtesy Hagley Museum and Library

Interior of an aboveground saltpeter refinery, ca. 1900. The V-shaped wooden hoppers shown here are similar to one style of vat used to leach calcium nitrate from the soils of Kentucky caves.

The McCoy mill became the only gunpowder factory in the Inner Bluegrass. The powder makers operated as McCoy & Son (Neal and his oldest son Alexander). Beset with financial difficulties, Neal mortgaged the property in 1839, and upon his death in 1841, passed to his son an ailing company. Alexander, struggling under a burden of debt and several lawsuits, continued making powder into the 1850s. The inherited debt and subsequent mismanagement caused the estate to be passed to other heirs late in the decade. The mill was converted to the production of cotton bagging and rope. The outbreak of the Civil War created a new demand for gunpowder, and the industry-poor South urgently required even old mills to be placed in service. In 1862, according to a postwar chronicle, Alexander, at the “. . . earnest solicitation of the Confederates again put into repair the long dilapidated equipment of the old powder mills, and during the occupation [of Lexington], to the extent of his limited facilities, continued to supply the Confederate forces with the powder so

much needed.” With the withdrawal of the rebel troops from Lexington, McCoy would have found himself in serious trouble with the returning Federals, so he quickly packed the essential equipment of the mill into wagons and followed the retreating Confederates. McCoy was overtaken and captured in the mountains of eastern Kentucky, and was imprisoned for a time.²⁸

The McCoy mill was the last gunpowder establishment to operate in the Bluegrass. The booming industry that once had centered around Lexington had dwindled away. Never again would powder be produced commercially in the area. The era of powder mill proliferation in Kentucky had been tied closely to the supply of cheap, plentiful, and locally produced saltpeter — a period from about 1808 to 1813. Once this time had passed, Kentucky and Bluegrass mills could no longer compete successfully against the eastern and European powder manufacturers, not even for long in their own home markets. This competition, even more so than short-lived wartime demand for the product, was the powder makers’ limiting factor. As a result, Kentucky mills did not regain importance during the Mexican War or the Civil War.

²⁸Note to Catherine Higgins for \$1,500 secured by mortgage of Neal McCoy property, 24 May 1839, Fayette County Deed Book 16, Fayette County Courthouse Annex, 391; Indenture between Alexander McCoy and Bank of Kentucky, 13 December 1841, Fayette County Deed Book 19, Fayette County Courthouse Annex, 437; “McCoy’s Powder Mill,” *Lexington Herald*, 29 December 1901.