

NOTES ON EARLY LEAD MINING IN THE FEVER (OR
GALENA) RIVER REGION.¹

BY THE EDITOR.

No evidence exists, nor is it probable, that the aboriginal inhabitants of the Upper Mississippi valley made any considerable use of lead previous to the appearance among them of French missionaries, explorers, and fur-traders. The French were continually on the search for beds of mineral, and questioned the Indians very closely regarding their probable whereabouts. The savages, although superstitious with regard to minerals, appear soon to have made known to the whites the deposits of lead in the tract which now embraces the counties of Grant, Iowa, and La Fayette, in Wisconsin; Jo Daviess and Carroll counties in Illinois; Dubuque county, in Iowa, and portions of eastern Missouri. Undoubtedly this is one of the richest lead-bearing regions in the world, and when once brought to the notice of the pioneers of New France its fame became widespread. The French introduced fire-arms among the Northwestern Indians, and induced them to hunt, on a large scale, fur-bearing animals; thus lead at once assumed a value in the eyes of the latter, both for use as bullets in their own weapons, and as an article of traffic with the traders.

¹Not presented as a formal treatise upon this interesting subject. I have but thrown together in outline, as useful material for those who may wish to develop it, these rough notes on early lead mining in the Fever (or Galena) River region, the result of a somewhat protracted investigation, which has not, however, been carried to its utmost possibilities. The field is an interesting one, and deserves to be fully worked, in an historical monograph. An abstract of these notes appeared in the *Report of the American Historical Association* for 1893.

The Wisconsin and Illinois Indians were visited in 1634 by Nicolet,¹ who doubtless was the first to teach them the use of gunpowder. Radisson and Grosseilliers followed in 1658-59, and heard of lead mines among the Bœuf Sioux, apparently in the neighborhood of Dubuque.²

In 1673, Joliet and Marquette, when stopping with their voyageurs at the Indian town of Kaskaskia, on returning from the Lower Mississippi, must again have given the Illinois an example of the use of fire-arms and the utility of lead—if, indeed, this tribe had not already had some traffic in the ore with wandering traders and *coureurs des bois* operating at the head of the Mississippi River or of Lake Michigan, of whose presence in the region we catch faint glimpses in the earliest records of exploration.³

The journals of Marquette and La Hontan (1689) speak of the mineral wealth of the Upper Mississippi country; but they appear never to have seen the mines themselves, and, misunderstanding their informants, concluded that the deposits were of gold, silver, and copper. Hennepin's map of 1687⁴ has a lead mine located in the neighborhood of where Galena now is, showing that he had definite information regarding it. Joutel, who was in the country as early as 1687, says⁵ that "travelers who have been at the upper part of the Mississippi affirm that they have found mines of very good lead there."

¹ See Butterfield's *History of the Discovery of the Northwest by Jean Nicolet, in 1634* (Cincinnati, 1881).

² *Wis. Hist. Colls.*, xl., p. 93.

³ "There cannot be a doubt that many of the French voyageurs beside M. Perrot and the Du l'Huts had explored a large part of the country * * * at a very early day, but of their adventures we have no account, because they were not sufficiently educated to record them. We have occasionally incidental allusions in public documents, in works on geography, and in memoirs, which prove this to have been the case."—Mills, *Report on the Boundaries of the Province of Ontario* (Ottawa, 1877), p. 6.

⁴ Breese, *Early History of Illinois*; and Winchell, *Geological Survey of Minnesota, Final Report*.

⁵ Joutel, *Journal* (1713).

It is alleged¹ that some French traders stationed in the vicinity of Peoria Lake, on the Illinois River, purchased a quantity of lead in 1690 from certain Indian mines on what afterwards came to be known as Fever or Galena River.

When in the Green Bay region in 1690, after having made an expedition up the Mississippi, Nicholas Perrot, on being presented by a Miami chief with a lump of lead ore, promised that within twenty days he would establish a post below the Wisconsin River. La Potherie says² that the chief gave Perrot information as to the locality of the mines, and the latter accordingly visited them. Perrot, we are told, found "the lead hard to work, because it lay between rocks and required blasting; it had very little dross, and was easily melted." Perrot's post, built at this time, was doubtless on the east side of the river, about opposite the Dubuque mines.

As early as 1693, Le Sueur was commandant at Chequamegon Bay, and appears to have made extended explorations throughout the Upper Mississippi valley, thereby "acquiring renown."³ In 1695 he built a fort on a large island in the Mississippi River between Lake Pepin and the mouth of the St. Croix,⁴ which became for the French, says Charlevoix, "the centre of commerce for the western parts." While occupying this position, it appears that he discovered "mines of lead, copper, blue and green earth," and went to France to solicit the court's permission to work them. After many delays, he set out from France, in 1699, in D'Iberville's second expedition to Louisiana, which arrived at its destination in December. He had been commissioned by the king to explore and work "the mines at the source of the Mississippi," and had thirty miners assigned to him. His reporter and companion,

¹ *Hunt's Merchants' Magazine*, xviii., p. 286.

² Edition of 1753, ii., p. 251; *Wis. Hist. Colls.*, pp. 301, 331.

³ Shea, *Early Voyages up and down the Mississippi* (Albany, 1861), pp. 89 et seq.

⁴ Neill, *History of Minnesota* (1892), p. 148; Thwaites, *Story of Wisconsin* (Boston, 1890), p. 79.

Pénicaut, after speaking of the rapids in the Mississippi at Rock Island, says: "We found both on the right and left bank the lead mines, called to this day the mines of Nicholas Perrot, the name of the discoverer. Twenty leagues [39 English miles, by U. S. land survey] from there on the right, was found the mouth of a large river, the Ouisconsin."¹ It was the 13th of August, 1700, when they arrived opposite Fever River, which Pénicaut calls "Rivière a la Mine." He reports that up this little river, a league and a half, there was "a lead mine in the prairie." They passed up the Mississippi, Pénicaut mentioning two streams which correspond to the Platte and Grant rivers, in Wisconsin, and says that Le Sueur "took notice of a lead mine at which he supplied himself,"—supposed to be what afterwards came to be known as "Snake diggings," near Potosi, Wisconsin. After making note of the Black, Buffalo, Chippewa, and St. Croix rivers, in Wisconsin, Le Sueur passed the winter on the Blue River, in what is now Minnesota. He does not, except for his immediate necessities, appear to have utilized the lead mines he had discovered. The following summer he abandoned his post, and returned to France.²

On William de l'Isle's chart of Louisiana, issued in 1708, in which he was assisted by the observations of Le Sueur, the Galena lead mines are plainly indicated, as are also the Dubuque mines, on the west side.³

September 14, 1712, Louis XIV. granted to Sieur Anthony Crozat, for a term of fifteen years, a monopoly of trade and mining privileges in Louisiana. The mines were granted in perpetuity, subject to a royalty, and to forfeiture if abandoned. While Crozat's men found none of the

¹ *Margry*, v., p. 412.

² In this same year (1700), Father Gravier made a trip down the Mississippi, and wrote: "I do not know what our court will decide about the Mississippi, if no silver mines are found, for our government does not seek land to cultivate. They care little for mines of lead, which are very abundant near the Illinois."—Winsor, *Cartier to Frontenac* (Boston, 1894), p. 365.

³ *Neill, Minnesota*, p. xlv.

precious metals, they appear to have discovered considerable lead deposits in what is now southeastern Missouri;¹ and no doubt the English traders, who seriously encroached on the French domain, and the wandering *coureurs des bois* had more or less traffic with the Indians for ore, to meet both present needs and home demand.

In 1715, La Mothe Cadillac, governor of Louisiana, and founder of Detroit, went up to the Illinois country in search of reputed silver mines, but carried back only lead ore "from the mines which were shown him fourteen miles west of the river."²

Crozat resigned his monopoly to John Law's Company of the West, chartered September 6, 1717; and two years later Louisiana—to which the Illinois country had now become attached—entered upon the brief period of "boom" which was inaugurated by that ill-timed enterprise.

In 1719 there arrived in the Illinois, Philippe François de Renault, newly appointed "director-general of the mines of the Royal India Company in Illinois."³ He dispatched prospecting parties to various points on both sides of the Mississippi River; and during the four years he spent in the district, discovered lead mines on the Meramec River and north of what is now Potosi, in Missouri; while M. de la Motte found paying leads on the St. François River, also in Missouri. July 21, 1722, one Le Gardeur de l'Isle writes from Fort Chartres, near Kaskaskia, that he was in command of a detachment of twelve soldiers to accompany M. de Renault to the Illinois River, to look after some alleged copper and coal mines, and found what he claimed to be silver and gold.⁴ No doubt these deposits were but lead and coal, for the French explorers were prone to deceive

¹ Wallace, *Illinois and Louisiana under French Rule* (Cincinnati, 1893), pp. 233, 240.

² Winsor, *Narr. and Crit. Hist. of Amer.*, v., p. 50.

³ The term Illinois then applied to a large district, lying on the Mississippi and centering at the mouth of the Illinois River; practically all of the present state of that name, and the eastern half of Missouri and Iowa.

⁴ Letter of E. B. Washburne to Chicago Hist. Soc., in *Chicago Times*, Dec. 18, 1880.

their patrons as to the value of their mineral discoveries. Charlevoix refers to alleged silver discoveries by Cadillac, but doubtingly. Shea, in a note on this reference (*Charlevoix*, vi., p. 25), says that De Renault "extracted silver from Illinois lead ore in 1722." Silver is certainly combined with the lead, in this district, but is not present in quantity sufficient to be profitably worked. In June, 1723, De Renault was granted a square league of territory in the northwestern part of what is now Monroe county, Illinois, and also a tract at Peoria containing about 14,000 acres. Upon the former estate he planted a small village, "St. Philippe," but by 1765 the place was deserted, the French residents having removed to the west bank of the Mississippi.¹

The next reference we find to the lead mines is in 1743, when a M. le Guis gives an account² of the methods of "eighteen or twenty" miners then operating in the Fever River region—a fast lot, he says, every man working for himself at surface operations, and only getting out enough to earn him a bare existence for the rest of the year. Le Guis makes the following report of wasteful smelting methods employed by these miners, which were strikingly similar to those in vogue among American miners of later days until the introduction of the Drummond blast furnace,³ about 1836: "They cut down two or three big trees and divide them in logs five feet long; then they dig a small basin in the ground and pile three or four of these logs on top of each other over this basin: then they cover it with the same wood, and put three more logs, shorter than the first, on top, and one at each end crossways. This makes a kind of box, in which they put the mineral, then they pile as much wood as they can on top and around it. When this is done, they set fire to it from under; the logs burn up and partly melt the mineral. They are sometimes obliged to repeat the same operation three times in order to

¹ *Ibid.*

² *Wallace*, pp. 274, 275.

³ Invented by Robert A. Drummond, of Jo Daviess County, Ill.

extract all the matter. This matter, falling into the basin, forms a lump, which they afterward melt over again into bars weighing from sixty to eighty pounds, in order to facilitate the transportation to Kaskaskia. This is done with horses, who are quite vigorous in the country. One horse carries generally four or five of these bars. It is worthy of remark, gentlemen, that in spite of the bad system these men have to work, there has been taken out of the La Motte mine 2,500 of these bars in 1741, 2,228 in 1742, and these men work only four or five months in the year at most."

Up to November 3, 1762, France held possession of both sides of the Mississippi, but she then ceded the eastern half of the valley to Great Britain, who did not, however, take possession until April 21, 1764. In the same year of the cession to Great Britain, France made a secret treaty with Spain, by which the country west of the river was handed over to the latter power, which, however, allowed six years to elapse before she assumed charge.

In 1763, Francis Benton made finds of lead near Potosi, Missouri, and had, for a time, extensive workings there.

The map made by Jonathan Carver, as a result of his Northwestern travels in 1766, places lead mines at Blue Mounds, just south of the Wisconsin River. He found ore in the streets of "the Great Town of the Saukies," about the site of the present Prairie du Sac, and appears to have ascended the principal mound, which he says "abounded in lead."¹

In Capt. Henry Gordon's *Journal*, written the same year (1766),² occurs the following passage, showing that there was at that time a considerable lead industry in progress among the French on the west side of the Mississippi: "The French have large boats of 20 tons, rowed with 20 oars, which will go in *seventy odd days* from New Orleans to the Illinois. These boats go to the Illinois twice a year, and are not half loaded on their return; was there any

¹ Carver, *Travels* (London, 1778), pp. 47, 48.

² In Pownall, *Topographical Description of North America* (London, 1776).

produce worth sending to market, they could carry it at no great expence. They, however, carry lead, the produce of a mine on the French side of the river, which yields but a small quantity, as they have not hands to work it. These boats, in times of the floods, which happen only in May and June, go down to New Orleans from the Illinois in 14 and 16 days."

In 1769 was made the first application for a concession of lead-mine land in the valley of the Upper Mississippi. The petitioner was Martin Miloney Duralde, who signed his application at St. Louis, July 5, 1769. The day following, the grant was issued, being signed by Louis St. Ange de Bellerive, captain-commandant of the Illinois, and Joseph Labuxière, "attorney of the attorney general, judge, etc., of the royal jurisdiction of the Illinois, for the French." This grant embraced a tract of land "three arpents in front, by the ordinary depth,"¹ on Le Sueur's River of the Mines (Fever River), "160 leagues, more or less, above" St. Louis. From the tone of his petition, Duralde appears to have been a ne'er-do-well, and there is no record extant to show that he ever settled upon his grant or opened any mines, although the Spaniards confirmed all French land grants.

Capt. Philip Pittman, writing in 1770 of Ste. Genevieve,² which had become a notable market for lead, says: "A lead mine about fifteen leagues distant, supplies the whole country with shot." It appears that at this time lead was, next to peltries, the most important and valuable export

¹ French claims in Michigan were usually forty arpents in depth; these claims at Green Bay were merely possessory, and allowed by the government to extend eighty arpents from front to rear. The old Spanish common-field lots, in and around St. Louis, were from one to four arpents wide on the river, by forty in depth. This appears to have been "the usual depth" of grants, during this period, although in special cases they were much more extensive. The Spanish and French grants in Upper Louisiana are fully discussed in Scharf's *St. Louis*, chap. xiii. The arpent is equal to 192 feet, 6 inches, English measure.

² *Present State of European Settlements on the Mississippi* (London, 1770).

of the country, and served as currency. This lead trade was afterwards transferred to St. Louis, when that town began to control the commerce of the region.¹ One of the largest lead dealers of the day was Joseph A. Sire, one of the associates of Chouteau & Sarp's fur company. Under the Spanish *régime*, which now ensued, we are told by Stoddard,² a careful annalist, that lead miners working for themselves often took out "thirty dollars per day, for weeks together,"—a profitable employment, indeed. The traders who dealt in the material also made large profits, the returns being "cent per cent for the capital invested."³

Julien Dubuque was the next character of note, upon the scene. He was a man of remarkable energy, and singularly popular among the Indians. In 1788 he obtained from a full council of the Sac and Fox Indians, held at Prairie du Chien, formal permit "to work lead mines tranquilly and without any prejudice to his labors." He had previously made rich discoveries of lead on the west bank of the Mississippi, in the bluffs and ravines adjoining the site of the present Iowa town which bears his name. In the immediate neighborhood of his mines, if not one of

¹In Ogden, *Letters from the West* (New Bedford, Mass., 1823), p. 58, is this entry, showing that Ste. Genevieve was still flourishing in his time: "St. Genevieve, in particular, is a fine flourishing town. Here, back of the river, lead ore is found in great abundance, which has become a traffic of great profit to the inhabitants."

²Major Amos Stoddard, *Sketches Hist. and Descrip. of Louisiana* (Phila., 1812).

³Scharf, *St. Louis*, p. 306; *Mich. Pion. Colls.*, ix., p. 543. In his notes to Forman's *Narrative* (Cinn., 1886), L. C. Draper says: "About the first of June, 1790, Colonel Vigo, an enterprising trader of the Illinois country, consigned to him [Michael Lacassangue, a Louisville trader], 4,000 pounds of lead, brought by Major Doughty [who built the fort at Clinch-nati] from Kaskaskia."

In 1796, John James Dufour, afterwards founder of the Swiss colony at Vevay, Ind., came to America, and made his start here by buying lead at Kaskaskia, St. Louis, etc., and taking it up the Ohio River to Pittsburg, where he disposed of the cargo at a profit. With the proceeds he bought 630 acres of land, for a vineyard, at the big bend of Kentucky River.

them, was a rich lead discovered in 1780 by the squaw of Peosta, a Fox warrior.¹ Tradition has it that when he made his first location near Dubuque, a man named Du Bois was living at a mine on the eastern bank, nearly opposite,—probably just south of the present village of Dunleith. Dubuque, in honor of the Spanish possessors of the soil, styled his diggings "The Spanish Mines." Some Spaniards, also, undoubtedly had before his time conducted operations in the neighborhood, for when he went into the country he found substantial roads built for the transportation of ore; these, the Indians told him, had been made by Spaniards.² Dubuque does not appear to have restricted himself to the west side of the river. It is believed that his prospectors and miners, who all enjoyed the full sympathy and confidence of the Sacs and Foxes, roved about at will on both sides, and opened leads on Apple River, near the present village of Elizabeth; and as early as 1805 even operated the old Buck and Hog leads on Fever River.

It is a fair inference that the Indians had themselves operated the mines after a crude fashion, fully a century before Dubuque's time. But, as we have seen, this was doubtless only to get bullets for the guns which they had acquired through trade with the French, and to furnish the fur-traders with a commodity quite as desirable as peltries. It is presumable that the French first showed the natives

¹ Schoolcraft, *Discovery of Sources of Mississippi River* (Phila., 1855), pp. 174, 175. Schoolcraft visited the Dubuque mines in 1820, and gives an entertaining account of them and the native manner of working them: *Ibid.*, pp. 169-173. He places the distance below Prairie du Chien at 60 miles, and the extent of the tract, "seven leagues in front [along the Mississippi] by three in depth." See also, Schoolcraft, *View of the Lead Mines of Missouri*, etc. (N. Y., 1819).

² In 1780, as appears from letters of Lieut. Gov. Patrick Sinclair to Gen. Frederick Haldimand (*Wis. Hist. Colls.*, xi., pp. 151, 152, 155, 156), the Sacs and Foxes, led by MM. Calve and Ducharme, were in active league with Spanish and American miners against British influences in the diggings. The Winnebagoes and Menomonees assisted the British in attacking the miners, and seventeen of the Americans and Spaniards were taken prisoners to Mackinaw.

how to mine and smelt the ore. There is no evidence that the American aborigines ever practiced the arts of smelting and casting, before the advent of the whites. The methods in vogue among the Indians were practically such as the whites are known to have employed in the earlier days of lead-mining, and are thus described by an eye-witness, writing in 1819: "A hole was dug in the face of a piece of sloping ground, about two feet deep and as wide at the top. This hole was shaped like a mill-hopper and lined with flat stones. At the bottom or point of the hopper, which was eight or nine inches square, narrow stones were laid across, gratewise. A trench was dug, from the sloping ground inward to the bottom of the hopper. This channel was a foot in width and height, and was filled with dry wood and brush. The hopper being filled with the ore and the fuel ignited, in a few minutes the molten lead fell through the stones at the bottom of the hopper, and thence was discharged, through the trench, over the earth. The fluid mass was then poured into an awkward mould, and as it cooled it was called a 'plat,' weighing about 70 lbs., very nearly the weight of the 'pig' of later days."

There is no doubt, however, that this method was an improvement over that in vogue among the savages in the time of early French domination; for we read that in Crozat's day the Indians reduced the mineral by throwing it on top of large fires. "Large logs would be placed on the ground and smaller pieces of wood piled around and the ore heaped on. The fire would be set in the evening and in the morning shapeless pieces of lead would be found in cakes, or in small holes scratched in the earth under the logs; or sometimes in shapeless masses. These pieces were sold to the traders."¹

The Indians, we are told by another writer,² only skimmed the surface, as a rule; although occasionally they drifted into side-hills for some distance, and when they

¹ Cf. *Wis. Hist. Colls.*, ii., p. 228.

² *Hist. Jo Daviess Co., Ill.* (Chicago, 1878), p. 836.

reached "cap rock" would build a fire under it and then crack it by dashing cold water on the heated surface. Their tools, in the earliest times, were buck-horns, many of which were found in abandoned drifts by the early white settlers; but in Dubuque's time they obtained hoes, shovels, and crow-bars from the traders to whom they sold lead. The Indians loaded their ore at the bottom of the shaft into tough deer-skins, the bundle being hoisted to the surface or dragged up inclined planes by long thongs of hide.¹ Many of these Indian leads, abandoned by the aborigines when the work of developing them became too great for their simple tools, were afterwards taken possession of by whites, with improved appliances, and found to be among the best in the region. Early writers generally agree that the Indian mining was almost wholly conducted by old men and squaws, the bucks doing the smelting. However this may be, it is certain that in later days a good many bucks worked in these primitive mines, and many of them are known to have assisted Dubuque. The Sacs and Foxes were the owners of the lead-mine district during the eighteenth century, but by the treaty of 1804 they relinquished their lands east of the Mississippi, and the gypsy Winnebagoes then squatted in the district: although with them were mingled many Sacs and Foxes who had married into the Winnebago tribe, in addition to "the British band" of Sacs, around Rock Island, who were afterwards (1832) implicated in the Black Hawk disturbance.

Dubuque appears to have largely employed his Indian friends in prospecting for lead mines. When their discoveries were reported to him, he would send Canadians and half-breeds to prove the claims and sometimes to work them; although, in many cases, he was content with proving the claim and allowing the Indians to work it themselves, the product being brought to his large trading-house on the west side of the river. In this manner the entire region of the lead mines in Iowa, Wisconsin, and Illinois became

¹ *Hist. Grant Co.* (Chicago, 1881), p. 477.

more or less occupied by Dubuque's men before any permanent American settlement.¹

Dubuque, who in order to conciliate the Spaniards had named his west-side plant "The Mines of Spain," deemed it advisable to seek a formal recognition from the government of Louisiana. He obtained, November 10, 1796, from Baron de Carondelet, Spanish intendant and governor-general of the province, the grant of a tract seven leagues in length, along the west bank of the Mississippi, by three leagues in depth: but with certain restrictions as to trade, to be prescribed by "the merchant Don Andrew Todd," who had a monopoly of the commerce of the upper valley. Don Andrew, however, does not seem to have been able to hamper Dubuque, and the latter's establishment grew with time. His friendship with the Indians, and their dislike of the Spanish, were a sufficient safeguard against interference from Don Andrew, although he appears to have met with no small opposition on the east side of the river from wandering representatives of the American Fur Company at Mackinaw, who are said to have obtained considerable supplies of lead from the crafty Foxes, and indeed to have themselves smelted some ore.

Dubuque waxed wealthy from his lead and peltries, which he shipped to St. Louis, making two trips a year in a pirogue. In a formal statement made to Maj. Z. M. Pike, September 1, 1805,² he claimed that his mines on the west side of the Mississippi extended over a tract of territory "twenty-eight or twenty-seven leagues long, and from one to three broad;" he said that he made from 20,000 to 40,000 pounds of lead per annum, all of it in pigs, although it is probable that this was an underestimate, for evidently he did not view with favor this evidence of American curiosity about his affairs.

In 1803, France uncereemoniously assumed possession of

¹In 1828, at Ottawa (Allenwrath diggings), two miles from Galena, there was found, under the ashes of a primitive furnace, a heavy sledge hammer, undoubtedly left by Dubuque's miners.

²Pike, *Expedition* (Philadelphia, 1810), appendix to part i., p. 5.

Louisiana, and almost in the same breath sold it to the United States, which took formal possession March 9, 1804, at St. Louis.

In 1811, George E. Jackson, a Missouri miner, had a rude log furnace on an island — now washed away — towards the east side of the Mississippi, not far below Dunleith and nearly opposite the mouth of Catfish creek.¹ Jackson floated his lead to St. Louis by flat-boat, and had much trouble with the Indians, who had a thorough dislike for Englishmen and Americans. The reason for this aversion to the Anglo-Saxon race, which has been noticeable, with few exceptions, from our earliest intercourse with the red man, is a natural one. The volatile manners of the French have been more in sympathy with the character of the savages, with whom their pioneers have readily intermarried; the French settled among the Indians for the purposes of trade and sociability, and their interests, like those of the Indians, lay in the direction of keeping the fur preserves intact. The bearing of the Anglo-Saxon towards the savage has ever been of a domineering character; we are preëminently an agricultural and manufacturing people, and our plan of colonization aims at the reduction of nature, with the view to making the land support a large population. Our aims, our methods, our manner, are diametrically opposed to a state of savagery. We are a covetous people, and it did not take long for the Indian to understand that the English or American borderer was the herald of a relentless system of conquest.

In 1812-13, John S. Miller joined fortunes with Jackson, but soon afterwards they abandoned their island furnace and returned down the river. In 1818, Miller returned with two companions, traded a boat-load of goods at Dubuque's old mines, and is supposed to have penetrated to the site of Galena and spent some time in the lead region. Miller and Jackson again visited the place in 1823.

The manufacture of shot near St. Louis dates from

¹ *Hist. La Fayette Co.* (Chicago, 1881), p. 394. Cf. *Wis. Hist. Colls.*, vi., p. 272.

Nov. 16, 1809, when J. Macklot ran his first cast through a tower which he had erected at Herculaneum, thirty miles distant from St. Louis, on the Joachim River. Indians brought lead in small quantities in their canoes, but the bulk of the ore was transported from the mines by Frenchmen.

In February, 1810, Nicholas Boilvin, then United States agent for the Winnebagoes, passed through on foot from Rock Island to Prairie du Chien, with Indians for guides, and by them was shown a lead mine near Fever River,—supposed to be what afterwards came to be known as the "Buck lead." In a letter to the secretary of war, dated a year later,¹ Agent Boilvin reported that the Sacs and Foxes (on the eastern side of the river) and the Iowas (on the west side) had "mostly abandoned the chase, except to furnish themselves with meat, and turned their attention to the manufacture of lead, which they procure from a mine about sixty miles below Prairie du Chien,"—undoubtedly the Fever River and Dubuque mines. He reports that in 1810 they manufactured 400,000 lbs. of the metal, which they exchanged for goods, mainly with Canadian traders, who were continually inciting them to opposition against Americans. Boilvin alludes to the fact that the Indians found lead mining more profitable than hunting, and that the government would be wise to introduce a blacksmith and improved tools among them. He thinks that by thus encouraging the Indian miners, "the Canadian trade would be extinguished."

In 1810, Henry Shreeve is said to have worked up the Mississippi as far as Fever River, and taken back from there a small cargo of Indian-smelted lead, to the towns on the lower Mississippi.

Between 1815 and 1820, Capt. John Shaw, afterwards a resident of Marquette county, Wisconsin, made eight trips with a trading boat between St. Louis and Prairie du Chien, and several times visited the Fever River mines,

¹ *Hist. La Fayette Co.*, p. 396.

² *Wis. Hist. Colls.*, xi, p. 262.

where he saw the Indians smelting lead in rude furnaces. At one time he bought seventy tons of metal from them, "and still left much at the furnace."¹

Nicholas Boilvin does not appear to have broken up the French-Canadian trade in the lead district, for we find that up to 1819 several American traders, who attempted to go among the Sac and Fox miners and run opposition to the Canadians, had been killed. One of these Americans is said to have thus lost his life in 1818, on Sinsiniwa creek.

In the immediate neighborhood of where Galena came to be planted, there were, in 1815, about twenty rude Indian furnaces, the product being bought almost entirely by French-Canadian traders, who are reported to have rated a peck of ore as worth a peck of corn. The same year, a crew of American boatmen attempted to go up Fever River by water, but the Indians prevented them, fearing the cupidity of the Americans, who might become excited by the richness of the mines, and attempt to dispossess the natives.

In 1816, Col. George Davenport, agent of the American Fur Company, and engaged in trade with the Sacs and Foxes, erected a trading post on the portage between the Mississippi and the Fever, near the mouth of the latter; but he left soon after, and went to Rock Island, where he settled. Davenport is credited with shipping to St. Louis, in 1816, the first flat-boat cargo of lead ever avowedly emanating from the Fever River mines; it was used in payment for Indian goods. Lead in those days was, like fur, quite as useful as currency in the financial operations of the country.

By a treaty concluded August 24, 1816, at St. Louis, all lands lying north of a line drawn due west of the southern extremity of Lake Michigan to the Mississippi, were granted to the Indians,² except a tract five leagues square

¹ *Wis. Hist. Colls.*, viii., p. 250. See Shaw's personal narrative in *Id.*, ii., pp. 197 et seq.

² To the Ottawas, Chippewas, and Pottawattomies. In a letter of Gov. Ninian Edwards, of Illinois, dated Belleville, Sept. 13, 1827 (Washburne,

on the Mississippi River, to be designated by the president. This reservation was intended to include the lead mines, the exact location of which was as yet undefined.

In 1819 there appears to have been a more general movement upon the lead regions. That year, Jesse W. Shull, the founder of Shullsburg, Wisconsin, was trading at the Dubuque mines for a Prairie du Chien firm. He was ordered to the Fever River country, across the Mississippi, but at first refused to go, from fear of the hostile Indians, who had lately murdered several American traders sent among them. Accordingly Col. James Johnson, U. S. A., summoned a Sac and Fox council at Prairie du Chien and, by promises and threats adroitly combined, induced them to promise not to molest Shull.¹ The latter thereupon went over, late in the summer, to the neighborhood of Galena, and erected a trading post there.² The same year, François Bouthillier, a French trader who had been at Prairie du Chien as early as 1812,³ had a hut on the east side of Fever river. Dr. Samuel C. Muir was also trading in the district in 1819. A. P. Van Metre was at the time on the east side of the Fever, with a small smelting furnace. When Capt. D. G. Bates went, in the fall of that year, with a French boat crew, up to the site of Galena—which he reached November 18,—he found there Shull, Van Metre,

Edwards Papers, pp. 304-306), and addressed to President Adams, it is pointed out that the Sacs and Foxes relinquished, by the treaty of 1804, all the lands between the Illinois and Wisconsin rivers; and that by the treaty of 1816 the United States gave the greater part of this tract, with the lead-mine reservation, to the three tribes named. Thus the Sacs had no share in this gift to the Ottawas, Chippewas, and Pottawatomes; neither did the Winnebagoes have any claim in it," unless some right has been recognized to them inadvertently by the U. S. since 1816, of which I know nothing, but which if it exists, was a clear and palpable violation of the treaty with the Ottawas, Chippewas, and Pottawatomes aforesaid, unless their consent was previously obtained, which I do [not] suppose was the case."

¹ Cf. *Wis. Hist. Colls.*, viii., p. 250.

² *Hist. La Fayette Co.*, p. 399.

³ See *ante*, pp. 63, 64.

and Muir, all of whom had taken Fox women for consorts.¹ The statement has also been made, but I can find no acceptable authority for it, that there was a trading-house, either French or American, near the mouth of the river,—at the portage to the Mississippi,—before any of these men were in the country.

Col. James Johnson of Kentucky² came to the lead mines of Fever River as early as 1819-20, and did some mining or smelting, and trading. A traveler on the Mississippi in 1821, speaks of meeting Johnson's flat-boats, loaded with lead.³

The largest discovery of lead ore up to Johnson's time was made in 1819 by the Sacs and Foxes operating a mine one mile above the site of Galena. Those Indians were members of a band led by "The Buck," who had long been encamped in the vicinity.⁴ It is thought that the lead had been originally worked by Dubuque's men, but that after Dubuque's death (1810) the natives had taken possession, and continued operations with the crude furnace plant erected by the whites. It took the entire force of the band to raise the enormous nugget which they had discovered, and they were very proud of it. The Indians expressed a strong desire that the find should be forwarded as a present to their Big Father at Washington; but as it was never so forwarded, it is presumable that the traders secured it in piece-meal, in the course of traffic, the rate of exchange still being a peck of corn for a peck of ore. The whites afterwards called this mine "Buck's lead," in honor of the chief who operated it; and a neighboring lead was styled "Doe's," in remembrance of the Buck's favorite squaw. The estimate was made, about 1820, that up to that time several millions of pounds had been extracted from the Buck lead, by the Indians and Dubuque's people—more

¹ *Hist. La Fayette Co.*, p. 400.

² A brother of Col. Richard M. Johnson, who was said to have slain Tecumseh.

³ J. G. Souland, in *Hist. La Fayette Co.*, p. 402.

⁴ *Wis. Hist. Colls.*, vi., p. 281.

than afterwards taken by the American miners, despite the fact that it was one of the richest mines in the region, and came to be worked in a scientific manner.

In June and July, 1819, Major Thomas Forsyth, United States Indian agent for the Sacs and Foxes, made a voyage from St. Louis to the falls of St. Anthony, and in his journal gives us,¹ upon good authority, "the number, situation, and quality of all the lead mines between Apple Creek and Prairie du Chien." The first he places about fifteen miles up Apple Creek, "a short mile" from the right bank; the next at Red Head's village, "six miles above the Grand Macoutely," on the west side of the Mississippi,—but this had been abandoned; the next, four miles up Fever Creek, on both sides of that stream, flat boats being able to approach within a mile and a half of the mine; the fourth, six miles above the mouth of Fever River on the east side of the Mississippi; the fifth, Dubuque's mines,—"too well known to require any description;" the sixth, fifteen miles above the Dubuque mines on the west bank of the Mississippi, six miles up the "Little Macoutely Creek;" the seventh, six miles above the Little Macoutely, but on the east side of the Mississippi; he adds that "There are many other lead mines on the Ouisconsin River, but my informant says he never was at any of them." Contractors for army and Indian supplies were at this time frequently passing the mines, on their way between St. Louis and Prairie du Chien, and Green Bay and Mississippi river points, and both Indian and white miners found ready customers for their lead.

In 1807 Congress had reserved the mineral lands from sale, and ordered that leases should be granted to individuals for terms of three and five years. But owing to Indian opposition and the intrigues of Canadians, operations under government leases were confined chiefly to Missouri. Elsewhere, men operated on their own account, and without system. The first lease in the Fever River

¹ *Wis. Hist. Colls.*, vi., p. 194.

country was granted, January 4, 1822, to T. D. Carnell and Benjamin Johnson, and Messrs. Suggett & Payne, all of Kentucky; Lieut. C. Burdine, U. S. A., was ordered to aid them in selecting 160 acres each in the lead region, and to protect them with an armed force.¹ But no result of the expedition, if it was ever undertaken, appears to have been published.

As early as April 12, following, a lease was granted to Col. James Johnson, who had for three years operated in the country without license. His lease was to run three years. He immediately took to the mines a number of workmen, including some negro slaves, and a supply of good tools; his party and appliances proceeded up the Mississippi and Fever rivers in keel-boats. Encamping where Galena now stands, and under strong military protection,² Johnson commenced operations on the most extensive scale yet known in the lead country. At the time, there were several French and Indian settlements on the Fever, the former being engaged in trade and the latter in mining and smelting. Amos Farrar, an agent of the American Fur Company, also had a trading post on the river.³

At once there flocked thither a horde of squatters and prospectors from Missouri, Kentucky, and Tennessee; while many came from Southern Illinois via Fort Clarke (Peoria) and the old Indian trail which was afterwards developed into a wagon road and styled "Kellogg's trail." For the most part, the new-comers paid little attention to congressional enactments. The lessees not being supported in their rights, protracted disputes ensued, many of them disastrous to all concerned. In 1822 there were, as we have seen, but four other lessees besides Johnson; and in 1823 but nine were added to the list;—among them Dr. Moses Meeker, who established a considerable mining

¹ *Hist. La Fayette Co.*, p. 402.

² *Wis. Hist. Colls.*, vi., p. 272; viii., p. 250.

³ *Hist. La Fayette Co.*, p. 402.

colony, which gave great impetus to the region.¹ The unlicensed plants could, however, be numbered by the score. The leasing system was so unsatisfactory to all concerned, and yielded the government such scanty revenue, that, under act of Congress approved July 11, 1846, the lands were brought into the market and sold in 1847.

It appears from the report of Lieut. M. Thomas, U. S. A., superintendent of lead mines, made to Congress in 1826,² that there were in the Fever river diggings, July 1, 1825, about 100 persons engaged in mining; December 31, 1825, about 151; March 31, 1826, about 194; but by June 30 the number had leaped to 406, which was increased to 453 by August 31. The agent estimates that in Missouri, at the period of his report, there were 2,000 men thus engaged—"miners, teamsters and laborers of every kind (including slaves);" but some of these were farmers who, with their slaves, spent only their spare time in the mines.

In 1827 the name Galena was applied to the largest settlement on Fever River, six miles from its junction with the Mississippi.³ The heaviest immigration set in in 1829, and from that time the history of the lead country is familiar.

What had particularly helped the later development of the Fever river region, after the Indians had been quieted, was the fact that on the west side of the Mississippi the mines were held to be private property, and prospectors were warned off. In 1832 the United States war department asserted the right of the general government to the tract granted by Spain to Dubuque, and Lieut. Jefferson Davis was sent from Fort Crawford with a detail of infantry to eject all settlers in "the Spanish mines" claiming title from Spain. There was much dispute as to the

¹ In *Wis. Hist. Colls.*, vi., p. 271, Dr. Meeker gives an interesting statement of early affairs in the mines, after his first visit, in 1822. Another valuable account is in *Hist. Jo Daviess Co., Ill.*, pp. 448 *et seq.*

² *House Ex. Docs.*, 19th Cong., 2d sess., II., No. 7.

³ The river is not now navigable, owing to heavy deposits of soil worked down from the limestone bluffs.

right of the government to so act, but Congress never passed on the claims of the settlers, and the lands being placed on the market were regularly sold. Many years after, the case came up in the United States supreme court, and the appellants—the heirs of Auguste Chouteau and John Mullanphy of St. Louis, who claimed to have bought a certain part of the tract, in 1804, of Dubuque—were defeated. In 1833 mining commenced upon an extended scale west of the river, the Spanish and the Indian titles now having been cleared.

In 1829, R. W. Chandler, of Galena, published in Cincinnati a map of the lead region on the east side of the Mississippi River, with the location of all the diggings, trails, and Indian villages of that time.¹ It is now exceedingly rare, and of great value to historians treating of Southern and Southwestern Wisconsin. A fac-simile of this interesting chart is given in *Wisconsin Historical Collections*, xi., p. 400.

¹ *Wis. Hist. Colls.*, viii., p. 250, note.