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SLAVERY AND THE WESTERN VIRGINIA SALT INDUSTRY

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In the six decades since Ulrich Bonnell Phillips initially addressed the problem, historians and, more recently, economists have produced a plethora of articles and monographic sections devoted to the question of slavery's effects on plantation enterprise and the Southern economy.¹ Defying a brief bibliographical listing, this torrent of attention has swelled to flood-tide with studies ranging from traditional narrative approaches to the imposition of contemporary accounting theory and econometric techniques upon nineteenth century institutions. Many scholars have attempted to fathom the immediate effect of the employment of slave labor upon efficiency of production and profitability.² With few exceptions, studies dealing with the economic

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¹Some initial articles by Phillips on the economic aspects of the institution of slavery are: "The Economic Cost of Slaveholding in the Cotton Belt," *Political Science Quarterly*, XX, No. 2 (June, 1905), pp.257-75; "The Economics of the Slave Trade, Foreign and Domestic," in James Curtis Ballagh, ed., *The South in Building of the Nation* (13 vols.; Richmond: The Southern Historical Publication Society, 1909-13), V, pp. 121-29; "The Decadence of the Plantation System," *The Annals of the American Academy of Political and Social Science*, XXXV, No. 1 (January, 1910), pp 37-41; and, "On the Economics of Slavery, 1815-1860," in *Annual Report of the American Historical Association for the Year 1912* (Washington: [Government Printing Office], 1914), pp. 150-51.

²A brief listing of monographs and articles concerning this subject is impossible. For a critical summation, see Harold D. Woodman, "The Profitability of Slavery: A Historical Perennial," *The Journal of Southern History*, XXIX, No. 3 (August, 1963), pp. 303-25, and Robert William Fogel and Stanley L. Engerman, "The Economics of Slavery," in Robert William Fogel and Stanley L. Engerman, eds., *The Reinterpretation of American Economic History* (New York: Harper & Row, 1971), pp.311-41.

aspects of the slave system have concentrated upon the relative efficiency and profitability of the institution in an exclusively agricultural context and upon the larger question of the impact of slavery upon the industrialization of the South. Until recent years, little attention has been concentrated upon the industrial use of slaves in an agricultural society—an important dimension of the slavery system that occupied a distinct minority of bondsmen.³

This study of the industrial use of slavery in the salt industry of the Great Kanawha Valley of Virginia has two primary purposes and applications.⁴ One objective is to detail the usage, adaptability, and adjustment of slavery in a specific industrial situation in order to amplify and augment the generalizations and survey work of recent historians. Another goal is to demonstrate the potentialities and shortcomings of county court and legal records as a nucleus of documentation and research on this elusive topic within a local context.

One should enter several caveats in this investigation or in any study based exclusively upon court records. No complete records, spanning a substantial period of time, of any single salt manufacturing firm in the Great Kanawha Valley exist. As a result, a vertical view of one salt company and its usage of slave labor is impossible. The view of manufacturing establishments yielded by the court records is neither continuous nor as complete as one might wish. The usual fragmentary nature of the evidence will frustrate those scholars interested solely in answers relating to costs and profitability. Generalizations about the operation of the institution of slavery from the information extracted from one court case are difficult because of the exceptional circumstances that led to litigation. Nevertheless, in the Great Kanawha Valley and in many other localities where slavery existed, local legal papers are the only source that a scholar can employ to reconstruct the operation of the system.⁵

³ Among the notable exceptions to this inattention were the article by S. Sydney Bradford, "The Negro Ironworker in Ante-Bellum Virginia," *The Journal of Southern History*, XXV, No. 2 (May, 1959), pp. 194-206, and the recent work of the late Robert S. Starobin: "Disciplining Industrial Slaves in the Old South," *The Journal of Negro History*, LIII, No. 2 (April, 1968), pp. 111-28; "The Economics of Industrial Slavery in the Old South," *Business History Review*, XLIV, No. 2 (Summer, 1970), pp. 131-174; and, *Industrial Slavery in the Old South* (New York: Oxford University Press, 1970).

⁴ The only published volume concerned with slavery in western Virginia is Charles Embury Hedrick, *Social and Economic Aspects of Slavery in the Transmontane prior to 1850* (Nashville: George Peabody College for Teachers, 1927). Hedrick did not recognize the existence of slave labor in the salt industry and, on the whole, the account is very superficial. See some of his conclusions, pp. 41, 125-26, 128, 134-37.

⁵ One might contend that local and state court records are the virginal, relatively unexploited, resource that will illuminate economic and other questions raised by historians. Many considerations have forced researchers to avoid this source whose importance might often transcend frequently cited extant plantation and business records. The sheer magnitude, bulk, and disorganization of many of these local court records discourage would-be investigators. Often these legal sources are not continuous and are housed in such a manner and under such custodial inattention as to render their employment impossible.

In 1808, the salt industry developed on the Great Kanawha River and Kanawha Salines rapidly became the largest production area for the basic necessity in the ante-bellum United States. By 1814, Kanawha salt production was 640,000 bushels annually—double the output of any other state—and it increased steadily to 3,224,786 bushels in 1846. Located in western Virginia on a ten-mile stretch of a primary tributary of the Ohio River, this industry distributed its product throughout the Ohio and Upper Mississippi river-basins. Western farmers and settlers, processors of agricultural commodities, and meat-packers at Cincinnati and other commercial centers depended upon Kanawha salt and furnished the primary markets for the basic commodity for life and preservation.⁶

With the rapid initial expansion of the Kanawha salt industry, salt-makers immediately faced a free white labor shortage and recognized the employment of slaves as a possible solution to their problem.⁷ Because there were few slaves in western Virginia to purchase or lease, Kanawha salt producers initially looked downstream to Kentucky as a source of slave labor.⁸ After the first years of development, Kanawha manufacturers relied on eastern Virginia to furnish hirelings for industrial functions. Eastern Virginia had a surplus slave population which was caused by the decline of agricultural productivity and other factors.⁹ Contemporary and historical accounts correctly assert that the human property was passing to the Lower South, but the salt industry of the Great Kanawha Valley of western Virginia was attracting sufficient numbers to meet its labor requirements. Most slaves coming from eastern Virginia were merely hired out by their owners. Large slave owners had agents on the Kanawha and many salt companies sent representatives to eastern Virginia to lease slaves.¹⁰

Keeping pace with the growing demands of the salt industry between 1810 and 1850, the slave population of Kanawha County grew very

⁶For a comprehensive history of this basic industry, see the author's work, "The Salt Industry of the Great Kanawha Valley of Virginia: A Study in Ante-Bellum Internal Commerce" (Unpublished Ph.D. dissertation, West Virginia University, 1970).

⁷Articles of Agreement between Charles Brown and William Cathey, November 14, 1808, County Court, Kanawha County Court Records (1808), West Virginia Collection, West Virginia University Library, Morgantown, West Virginia [hereinafter cited KCCR].

⁸Petition of Jesse B. Boone, dated [1812], Legislative Petitions of Kanawha County, Virginia State Library, Richmond, Virginia.

⁹Avery O. Craven, *Soil Exhaustion as a Factor in the Agricultural History of Virginia and Maryland, 1606-1860* (Urbana: University of Illinois, 1926), *passim*.

¹⁰William Cobbs v. David Ruffner, Lewis Ruffner, Daniel Ruffner, and Richard E. Putney doing business as David Ruffner & Company, Circuit Superior Court, KCCR (1828); George M. Woods v. Andrew Donnally, Circuit Superior Court, KCCR (1844); Martha Stone v. William D. Shrewsbury and Henry H. Wood, Circuit Superior Court, KCCR (1852); Deposition of Jacob Runyon, February 9, 1858, in George W. Clarkson v. David J.W. Clarkson, County Court, KCCR (1858).

rapidly. In the period 1810-1820, the number of slaves in the county more than tripled from 352 to 1,073. In succeeding decades, the growth rate was slower. In the ten-year period between 1820 and 1830, slave numbers increased 60 percent to 1,717. In the decades of 1830-1840 and 1840-1850, the rate slowed to increases of 49 and 22 percent respectively. In 1850, the slave population count reached its highest figure—3,140 slaves. The rate of demographic increase of slave inhabitants was more impressive when compared to the growth of the white citizenry. The growth rate of this group was much slower: 1810-1820, 3,468 to 5,297 for a 53 percent increase; 1820-1830, a 42 percent increase; 1830-1840, a 44 percent growth rate to 10,910; and between 1840 and 1850, the rate slowed to 10 percent at 12,100 white inhabitants.¹¹

Saltmakers employed slaves in all phases of the manufacturing process and in all subsidiary activities necessary to support a salt furnace. The heart of the factory was the furnace with the grainer pan that evaporated salt from the brine water pumped by steam engines from nearby wells. Coal carried by a rail haulage-way from an underground mine fueled the furnace. Necessary subsidiary activities for support of the process were maintenance and general labor, coal-mining (in earlier times, wood-cutting), blacksmithing, coopering, and cooking. Most tasks performed by hired and company-owned slaves were routine, but some required a high degree of skill. In one completely integrated salt furnace operation that did not contract for coal and barrel deliveries, 23 to 33 slaves were required.¹² A two-furnace factory needed approximately double the number. In 1854, James Cowey, a manager of two salt furnaces, deposed that of 64 laborers under his control, 58 were slaves.¹³ Testifying in a deposition in 1853, a veteran salt maker estimated the employment of hands at two salt furnaces: fourteen coal-diggers, five wheelers (wheeled coal from interior of mine to mouth), four haulers (hailed coal by team on railroad tramway from mine-mouth to furnace), three kettle-tenders, one or two "cat-hole" cleaners (cleaned coal ash repository), six engineers (ran steam engines to pump brine from well and through wooden pipes to evaporation pan),

¹¹This statistical information is computed from Table II, Population by Counties, 1790-1870, State of West Virginia, *Ninth Census of the United States* (Washington: Government Printing Office, 1872), I, p. 72.

New county formations would affect the growth rate of the white population more than the slave since few bondsmen were located in portions of Kanawha County territory incorporated into new counties. Most slaves were concentrated in the Kanawha Salines area which remained within Kanawha County boundaries..

¹²Deposition of Nathaniel S. Brooks, February 23, 1855, and Deposition of John N. Clarkson, February 28, 1855, in *Thomas R. Friend v. William J. Stephens, Abraham Williams, et al.*, Circuit Superior Court, Mason County Court Records (1853), West Virginia Collection, West Virginia University Library [hereinafter cited MCCR].

¹³Deposition of James Cowey, August 31, 1854, in *ibid.*

two salt-lifters and wheelers (lifted salt from pan after evaporation and wheeled product to packing shed), seven "jim arounds" and packers ("jim arounds" were general laborers and firemen and packers placed salt into barrels for shipment), two blacksmiths, one "negro man sort of manager," and one cook.¹⁴

To attain optimum production capabilities and return on plant investment, saltmakers ran their furnaces 24 hours per day and, if they chose to incur the risk of arrest and overproduction, seven days per week. Although police regulations forbade labor on the Sabbath Day and established six days as the legal length of the work week, producers usually disobeyed this laxly enforced prohibition. At times, depressed salt prices occasioned by overproduction forced Kanawha manufacturers to agree mutually to "blow out" their furnaces on Sunday. In these periods, community pressure caused the justices of peace to enforce the law. In 1841, Nathaniel Hatch, a Justice who held court in the Terre Salis Presbyterian Church, fined a number of producers for Sabbath-breaking by working themselves and their slaves.¹⁵

Salt manufacturers offered monetary incentives to factory slaves (except coal diggers) to work without days of rest and these payments became recognized by custom. The firms paid both hired and owned slaves an extra amount for Sabbath labor. The manager carried the accumulated amounts on the books during the year and paid the whole sum to the slave on Christmas Day. A former coal bank manager noted: "[t]he coal diggers generally dug their coal for Sunday's run on Saturday; but it was paid for extra. It was generally hauled to the furnace on Sunday. The other hands . . . were actually employed on Sunday . . ."¹⁶ Over a five-year period, Thomas Friend paid between \$1,200 and \$1,482 annually for extra Sunday work to 35-40 hands.¹⁷ Frequently, manufacturers desired to operate their furnaces during part or all of the Christmas season. Slaves received direct extra payment for this holiday work.¹⁸

Owners and managers could project the production of a furnace for a certain operating period such as a day, week, or month, barring breakdowns and accidents. They knew the amount of fuel, barrels, and other

¹⁴ Deposition of R. C. M. Lovell, October 14, 1853, in *Early & Wife v. Friend Et Al.: An Appeal from the Circuit Court of Kanawha* (2 vols.; Lewisburg, Va.: William F. Farish, Printer, 1857), II, p. 62 [hereinafter cited *Early & Wife v. Friend, Et Al.* (1857)].

¹⁵ *Commonwealth v. Joseph Friend*, County Court (1841); *Commonwealth v. Joel Shrewsbury and William Dickinson*, County Court (1841); *Commonwealth v. Andrew Donnally and Issac Noyes*, County Court, KCCR (1841).

¹⁶ Deposition of Obediah Crow, [no date], in *Early & Wife v. Friend Et Al.* (1857), I, p. 276.

¹⁷ Deposition of Robert Blaine, [no date], in *ibid.*, p. 245.

¹⁸ *Ibid.*; Deposition of Obediah Crow, [no date], in *ibid.*, p. 277; Luke Willcox Diary, December 31, 1844, Vol. I, p. 17, West Virginia Collection, West Virginia University Library.

work that was needed for efficient operation and they could set production goals for labor. A stable and predictable labor supply and work system met these requirements and goals. Kanawha manufacturers universally adopted the task system in the Salines to measure production and to reduce managerial costs. John D. Lewis, who had manufactured salt since 1832, testified in 1854 in a court case that on the Kanawha, "we operate a furnace by task work, a coal digger has a prescribed quantity of coal to dig, a hauler, a salt packer a prescribed quantity to pack, and engineer, and kettle tender a certain time to be on watch."¹⁹

Despite the use of the task system, owners maintained a managerial hierarchy. In an integrated salt manufacturing facility, a manager (overseer), boss kettle-tender, coal bank manager, and, in some cases, a well tender composed the supervisory personnel. Resident owners acted as general superintendents and handled all sales, but left the active management to overseers. Managerial personnel were responsible for meeting the goals of production and for repairing the machinery and equipment.²⁰ Usually white men occupied supervisory positions, but there is evidence that slaves sometimes performed managerial functions. In the furnaces operated by Thomas Friend, two slaves held the important positions of boss kettle-tender and overseer. In an inventory of hands, Tom, the boss kettle-tender, was adjudged as being very skillful in maintaining and repairing the furnace. Simon, age 33, was appraised: "*kean*, stout; salt well tuber, engine repairer, salt-maker and overseer—experienced, skilful, and industrious."²¹

Slave ownership and leasing reached a measurable high point in the Kanawha salt industry in 1850. Table I, showing the "Number, Age, and Sex of Slaves Owned and/or Leased by Salt Firms in Kanawha County, Virginia in 1850," illustrates the extent of slave possession. Statistics compiled in this table were drawn from two manuscript sources, Schedule 5, Products of Industry, of Kanawha County and Schedule 2, Slave Inhabitants of Kanawha County, of the United States Census of 1850. Each salt firm listed in Schedule 5 was matched with the slaves it owned or possessed as itemized in Schedule 2.

Several limitations or shortcomings are inherent in the content and compilation of Table I. Thirty-three salt companies were listed in Schedule 5, but only 27 could be located as owning or possessing

¹⁹ Deposition of John D. Lewis, August 31, 1854, in Thomas R. Friend v. William J. Stephens, Abraham Williams *et al.*, Circuit Superior Court, MCCR (1853).

²⁰ Deposition of James Cowey, August 31, 1854; Deposition of Nathaniel S. Brooks, February 23, 1855; Deposition of John N. Clarkson, February 28, 1855; and, Deposition of John D. Lewis, August 31, 1854, in *ibid.*

²¹ Deposition of Robert Blaine, [no date], in *Early & Wife v. Friend Et Al.* (1857), I, p. 228.

Table 1: Number, Age, and Sex of Slaves Owned and/or Leased by Salt Firms in Kanawha County, Virginia in 1850

FIRM	Under 15		15-19		20-29		30-39		40-49		50-59		over 59		Total by Sex		GRAND TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Dickinson & Shrewsbury	29	15	15	8	76	5	36	3	31	4	7	1	1	1	195	37	232
John N. Clarkson	39	26	10	5	28	16	14	2	6	2	3		2		102	51	153
Andrew Donnally & Co	11	21	8	7	26	6	16	3	11	1	8	3		1	80	42	122
Joseph Friend	25	18	7	3	22	8	14	3		1	3	2	1	2	72	37	109
John D. Lewis	16	27	6	1	9	7	12	3	8	1	13	3	2	1	66	43	109
Samuel H. Early	7	12	8		21	3	4	4	2	4	6			2	48	25	73
Henry H. Wood	5	7	7	1	12	3	10	4	3		2	1			39	16	55
W. C. Brooks & Co	3	3	3		24	1	10	1	5	1	1		1		47	6	53
James S. O. Brooks	3		3	2	19	1	16	1	6		1		1		49	4	53
E. V. Cox & William Hedrick	11	9	6		5	1	4	2	3	3	1		2	1	32	16	48
Lewis Ruffner	4	5	1		11	2	12	1	3		4	2	3		38	10	48
William D. Shrewsbury	2	3	4	1	12	4	8	2	7		2				35	10	45
Frederick Brooks	7	6	2		4		8	2	6	1	1				28	9	37
John P. Hale	3	4			11		6		6	2	2	1			28	7	35
Nathaniel V. Wilson	2			1	10	1	8		5		3	2	1		29	4	33
Spicer Patrick		1	1		10		6		8	1	2		2		29	2	31
Ira Hurt & Son	2	1	3		10		9	1		2	1	1			27	3	30
R. C. M. Lovell & Co	2	1	5		10		7		2		1		2		29	1	30
Franklin Noyes	3	2			7	2	11	1	1		1				23	5	28
Henry Chappel	4	6	3		6	2	5		1						19	8	27
Joseph Ruffner			1		15	1	5		3	1					24	2	26
George H. Warth	2	2	2		6	1	3	1	3	1	2	1	1		19	6	25
Enos S. Arnold			3		9		6		6						24	0	24
William A. McMullin	2	4	2		7	1	1		2	1	3				17	6	23
Jacob S. Darneal	3	1	1		3	1	7		1	1	1		1		16	4	20
Coleman & Ingles	2	2			9	2			1						12	4	16
James H. Fry	1		1		4	2	1	1			1		1		8	4	12
Totals	188	176	102	29	386	70	239	35	132	26	69	16	19	10	135	362	1497

Sources:

Schedule 2, Slave Inhabitants, Kanawha County, Virginia, Volume 7, Census of 1850, Seventh Census of the United States, National Archives, Washington, D.C.

Schedule 5, Products of Industry, Kanawha County, Virginia, Volume II, pp.13-20, United States Census of 1850, Virginia State Library, Richmond, Virginia.

slaves in Schedule 2. The six companies, Gleason & Downward, C.W. Atkinson, Norton & Kline, William & Jones, Shrewsbury & Fitzhugh, and Warth & English, reported a combined average monthly total of 133 male workers. It can be assumed that a minimum of 100 of these workers would be slaves. The exact compilation of the total number of all slaves owned or possessed by salt companies is impossible. The census schedules of slave inhabitants do not denote whether the slaves in possession of salt companies were leased or owned. Many of the slaves counted as being in the retention of salt manufacturing establishments were leased slaves, but it is impossible to account for the precise number. The accuracy of the reporting of the slaves' ages in the census returns cannot be assured. Experienced hirers and users who enumerated slaves in their possession would be approximately correct. Factors such as individual physical condition and work skill of slaves are not recognized. For example, a 50-year old experienced slave kettle-tender or blacksmith might have been more desirable for a salt company to retain than a physically virile 25-year old laborer. Generalizations about prime hands falling in certain age groups are hazardous, but it could be conceded that slaves between 15 and 39 years old were in greater demand since most labor around the salt furnace was physically rigorous.

West of the Allegheny Mountains in Virginia, Kanawha County had the highest total slave population in 1850 of 3,140 persons.²² Of this total number, 1,902 were male and 1,238 were female.²³ Salt firms controlled and possessed at least 1,497 of the total number. Adding the estimated 100 slave hands controlled by the six unaccounted salt companies to the 1,497, one can accurately conclude that over one-half of all slaves in Kanawha County were controlled by the salt industry centered at Kanawha Salines. Salt manufacturing firms retained 63 percent of all male slaves and 29 percent of all female slaves in Kanawha County. Of the total number of slaves accounted for in Table I as being possessed by salt firms, 75 percent were male. Of the total number of male slaves held by the salt manufacturers, 34 percent were between the ages of 20 and 29 and 21 percent were in the 30-39 age range; hence, 55 percent of all male slaves were in the prime labor age category. If one extended the prime male slave category to include the 15-19 age group, 64 percent of all male slaves held by salt companies would be considered prime workmen. Of the total number of slaves

²²Table II, Population by Counties, 1790-1870, State of West Virginia, *Ninth Census of the United States*, I, p. 72.

²³Table I, Population by Counties—Age, Color, Condition, State of Virginia, *The Seventh Census of the United States* (Washington: Robert Armstrong, Public Printer, 1853), pp. 252-56.

(both male and female retained by the salt companies in Table I), 48 percent were males in the 15-39 age group.

Although the basic labor of the salt industry was the single male slave, 15 to 39 years of age, slave family units existed to some extent. Female slaves had limited uses in the domestic establishment (as cooks) of the enterprise. Women over 15 years numbered only 186 and composed 52 percent of the female slave population in the salt business. Of the total number of slaves enumerated in Table I (1,497), 364 or 24 percent were males and females under 15 years. As in the Southern slave population as a whole, sexual ratios in the under 15 group on the Kanawha were approximately equal between males (188) and females (176). The male to female ratio in the other age groups was markedly disparate: 15-19—3.5:1; 20-29—5.5:1; 30-39—6.8:1; 40-49—5:1; 50-59—3.4:1; and, over 59—1.9:1.²⁴ There is a definite correlation between the largest salt firms and manufacturers, both in terms of total production and in terms of total slave possession, and the control of slave women and children. The largest salt companies, which included the oldest in the industry, had most of the slave women and children. The top seven firms in slave possession (Dickinson & Shrewsbury; John N. Clarkson, Andrew Donnally & Company, Joseph Friend, John D. Lewis, Samuel H. Early, and Henry H. Wood) controlled 56 percent of the total number of all slaves held by salt manufacturers in 1850 and 49 percent of the males over 15. These same firms held 69 percent of all females and 71 percent of the slaves, both sexes, under the age of 15. Operators of single furnaces could not support many slaves under 15 or many family units; newer companies and short-term entrepreneurs had not been in operation long enough nor had they the resources to accumulate slave families. Firms or manufacturers on leased property would rent prime labor in order to maximize profits, to maintain annual flexibility, and to withdraw easily upon expiration of the lease. For example, J. S. O. Brooks leased a

²⁴ Professor Carl N. Degler notes that the ratio between the sexes in the slave population in the United States was approximately equal in the so-called breeding and consuming regions of the South. He asserts that the existence of this ratio was conducive to the development of family units in slave society and eased exertion of control over slaves. "Slavery in Brazil and the United States: An Essay in Comparative History," *The American Historical Review*, LXXV, No. 4 (April, 1970), p. 1017.

The disparity between the sexes of slaves in Kanawha County is evidence of the impact of the salt industry in making the local slave system unique in the South. Consequently, if Degler's observations on the development of the family units and discipline within an approximately equal sexual ratio are correct, one can state that these two trends were not present in Kanawha Salines. By application of these observations to slave society in the Kanawha industrial situation, one can conclude that the family unit would not exist to a great extent and that there were obstacles to the maintenance of discipline.

furnace from Luke Willcox in 1845 for an eight-year term.²⁵ In 1850, he possessed 49 male and 4 female slaves, all the females being between 15 and 39 years old.

The widespread usage of the slave hire system in the Kanawha salt industry is not revealed in any statistical source. The census schedules do not differentiate between hired and owned slaves. Many slaves enumerated in Table I were hirelings, but the exact number cannot be determined. In his pioneer work on industrial slavery, Robert S. Starobin concluded that four-fifths of industrial bondsmen were company-owned in the Old South.²⁶ On the Kanawha, the proportion of owned slaves would be much lower. In 1850, the largest single salt company, Dickinson & Shrewsbury, had 232 slaves under its control, but in 1856 when the partnership was dissolved, it owned only 130.²⁷ One could assume that nearly 100 slaves were leased as the Dickinson & Shrewsbury organization was an active producer until its dissolution. It was frequent that 30-45 percent of a salt company's slave labor force was leased and in some cases, the percentage was as high as 90 percent. One physician-manufacturer, testifying in 1853, when asked about the proportion of slave labor owned in Kanawha County and hired outside for salt manufacturing, replied: "the larger proportion is hired, taking all the furnaces."²⁸ The proportion of leased slaves in the Kanawha salt industry would exceed 50 percent of all slave labor possessed by manufacturers in any given year.

Hire or lease agreements between bailor and bailee²⁹ in the leasing of slave labor in the salt industry were as diverse as the desires of the contracting parties and reflect the adjustment of the institution to an industrial situation. In the typical hire agreement, verbal or written, the bailee agreed to treat the property humanely, provide a certain standard of clothing and medical attention, and assume all taxes levied. Slaves were usually hired by the year, from January to December 25th. Hired slaves, by custom, were usually returned to their owners on Christmas or the day before with a blanket and winter clothing. A general slave holiday lasted from Christmas to New Year's Day.

Some slaveholders afforded themselves of the opportunity to en-

²⁵Luke Willcox Diary, August 29, 1845, September 1, 1845, October 27, 1845, November 1, 1845, Vol. I, pp. 27, 30.

²⁶Starobin, "The Economics of Industrial Slavery in the Old South," p. 132, and *Industrial Slavery in the Old South*, p. 12.

²⁷William Dickinson v. Joel Shrewsbury, Circuit Superior Court, KCCR (1856).

²⁸Deposition of Dr. Spicer Patrick, November 4, 1853, in *Early & Wife v. Friend Et Al.* (1857), II, p. 71.

²⁹For the purposes of this article, a general definition of a "bailor" is a party who bails or delivers goods, i.e. slaves, to another under a contract of bailment, expressed or implied. Conversely, the bailee is the party to whom personal property is delivered under an expressed or implied contract of bailment.

hance their investment by arranging for the instruction of their slave in a trade or occupation useful in the salt industry. Samuel Hannah hired a young slave to a blacksmith for a four-year term for a yearly rental of \$50. The blacksmith bound himself "to teach & learn the said Boy Preston to the best of his skill & judgment The Blacksmiths trade in all its various branches of business and to keep the said boy employed at no other business or work."³⁰ Three slaves were hired to saltmaker Samuel H. Early "to be allowed a Reasonable time to learn to cooper. . . ." If they could not become coopers, the slaves could be employed at other labor.³¹ Slave Tom was hired by his master to a producer "to spend part of his time learning the Coopers trade."³²

One of the safest and most common employments for slaves at the Salines was the manufacture of barrels for salt packing. The standard slave task was the assembling of seven barrels per day or 2,142 barrels in a year.³³ William H. Alpin hired two slave coopers, Henry and Ananias, on an incentive basis from the trustees of the estate of L. C. Lett. In addition to paying for medical bills, clothing, taxes, and food, Alpin promised to pay "ten cents for each and all barrels they shall have made over forty two each week" to the slaves.³⁴ Several bailors prevented the over-exertion of their slaves in manufacturing barrels by inserting restrictive provisions in the lease agreement. Richard, a cooper owned by Samuel B. Brown, was required to assemble only six barrels per day.³⁵ Of course, such provision could be interpreted as a requirement for a minimum level of performance. John Waid agreed not to demand hired slaves "when they labor to make more than six barrels per day each."³⁶ Many lease contracts specified that certain slaves would be employed only in the cooperage trade so that salt furnace owners or managers could not force the slave cooper to work in a more dangerous job.³⁷

With the exception of coopering, occupations in most phases of the salt industry were hazardous. None exceeded the dangers in coal min-

³⁰Samuel Hannah v. Lewis Billings, Circuit Superior Court, KCCR (1844).

³¹James S. Turner v. Samuel H. Early, *ibid.* (1848).

³²James A. Lewis v. John C. Ruby and Enos S. Arnold, County Court, *ibid.* (1857).

³³Deposition of John Waid, September 1, 1859, in Henry C. Sisson v. John P. Waid, *ibid.* (1858).

³⁴Articles of Agreement between Calvin Armstrong, Spicer Patrick, and R. C. M. Lovell, and William H. Alpin, December 29, 1859, *ibid.* (1859).

³⁵Samuel B. Brown v. Thomas Potts and William Tompkins, *ibid.* (1828).

³⁶Timothy B. Taylor v. John P. Waid, *ibid.* (1859).

³⁷William Cobbs v. John D. Shrewsbury, Sr. and John D. Shrewsbury, Jr., Circuit Superior Court, *ibid.* (1826); William Gillison, for use of James Y. Quarrier and Brothers, v. William F. Whitteker, Circuit Superior Court, *ibid.* (1837); Joseph Agee, Sr. v. Van B. Donnally, Ebenezer Baines, and Andrew Donnally doing business as V.B. Donnally & Company, Circuit Superior Court, *ibid.* (1839); George W. Summers v. Henry and Robert M. Sims, Circuit Superior Court, *ibid.* (1845).

ing, the most dangerous of all nineteenth century employments. Slaves were the laborers in the coal banks which supplied the fuel to salt furnaces. Time and time again, the fragmentary manuscript sources record savage accidents and deaths of black coal miners. Luke Willcox, in 1844, noted in his diary that his slave, Isam, had his "Arm Broke by Slate and coal falling on him." The master immediately sent for medical aid, but the outcome was tersely entered: "Isam died about 7 o'clock in the Evening."³⁸ A physician's assistant related a very gruesome accident in a court case in which a doctor was suing a salt manufacturer for a medical fee. The slave treated was injured in a roof fall, "a very bad one." His thigh was broken, his arm was fractured in two places, one above and one below the elbow, and crushed, and one hand was mangled with two fingers amputated.³⁹

Aware of the inherent dangers of coal mining, some slave-hirers stipulated that the lessee could not work the valuable property in coal mines.⁴⁰ George W. Summers forced the salt company which leased his Jim to agree to several prohibitions: "The negro man Jim is not to be worked in Coal Bank or as a kettle-tender, nor to be compelled to work on Sundays."⁴¹

Prohibitions forbidding slaves from working in unsafe pursuits did not restrain saltmakers or managers. The lack of a full court record inhibits a view of two cases involving such circumstances. A woman sued Lewis Ruffner for damages incurred when her slave, Ben, was killed in a roof fall in Ruffner's mine. In her \$800 damage suit, the plaintiff contended that Ruffner had agreed not to employ the slave in his coal mines.⁴² On January 1, 1832, Charles G. Reynolds hired two slaves, Lewis and Harry, from Ann Pollard for \$100 apiece. During the term of bailment, slave Lewis was "suffocated, crushed, and killed" in Reynolds' coal bank. In her declaration, Ann Pollard contended that Reynolds had promised that he intended to use them to tend kettles. The plaintiff stated that her slave was killed in September 1832. Lewis was appraised for \$700, and, as a result of being deprived of "divers great gains and profits" by death, the plaintiff sued for \$1,000 damages. The defendant entered a general demurrer to each count of the declaration and pleaded *non-assumpsit*.⁴³

In a separate case, Ann Pollard again sued Reynolds for the \$200

³⁸Luke Willcox Diary, January 9, 1844, Vol. I, p.1.

³⁹Deposition of Arthur Train, December 18, 1852, in Milton Parker v. William A. McMullin, Circuit Superior Court, KCCR (1851).

⁴⁰William Witcher, Administrator of Charles A. Gill, v. Henry Robinson, Thomas Scott, and George Nevels, *ibid.* (1846).

⁴¹George W. Summers v. John R. Humphries and William Graham doing business as Humphries & Graham, County Court, *ibid.* (1856).

⁴²Elizabeth Beeson v. Lewis Ruffner, Circuit Superior Court, *ibid.* (1846).

⁴³Ann Pollard v. Charles G. Reynolds, *ibid.* (Spring Term, 1833).

hire rent for Lewis and Harry. Reynolds showed that Lewis was killed in the coal mine on January 18, 1832, 17 days after his hiring, without any fault on the defendant's part. Declaring that he was willing to pay the hire for slave Harry, the defendant claimed a credit for \$95 for the loss of services (caused by the death of Lewis) for the remainder of the term of hire. The jury upheld the claims of Charles Reynolds and awarded the plaintiff \$105 and costs.⁴⁴ Although this incomplete case leaves much unsaid, it is very instructive. The distance between owner and slave when the bondsman was hired to a salt manufacturer is apparent. The owner, Ann Pollard, though a resident of Kanawha County, did not know in what month her slave was killed or the circumstances which had caused his demise.

The machinery and highly heated brine water of a salt furnace provided many inherent dangers for the unwary novice and the careless workman. Loss of balance around the grainer pan could result in a fall into nearly boiling water. One of Luke Willcox's slaves, Mid, was so severely scalded and burned from such an accident that he died.⁴⁵

Boiler explosions around the steam engines were frequent. In 1845, James Cowey and Company hired a slave named Frank "to work as a car driver in hauling and transporting coal . . . from their coal banks to their salt furnace." The company later used the slave in tending a steam engine. The boiler of the engine exploded and killed the slave. The owner, Edward C. Murphy, sued for the value of the slave plus damages. He contended that the boiler of the steam engine "was unsound, bad & defective, so that the safety of the slave was endangered." This accident occurred on the Sabbath Day when working was contrary to law, salt evaporation not being a household duty "of daily necessity." After litigation lasting for four years, from 1848 to 1852, and upon a final hearing of the facts, the jury in the Circuit Superior Court of Law and Chancery found for the plaintiff, Edward Murphy, \$739.75 damages plus interest from December 4, 1852. The factual aspects of this suit involving the individual slave and his work reveal some features of the operation of the labor system in the Salines.⁴⁶

Wiley P. Woods, the hiring agent for the plaintiff, stated that he had hired the slave, Frank, to Stuart Robinson of Cowey and Company during the Christmas holidays of 1844 for \$100 a year. The agent had never seen this particular slave before and Frank was the last slave hired by the agent in the Kanawha Salines that year. Woods understood that the slave had been in Kanawha County only one year and

⁴⁴*Ibid.* (Fall Term, 1833).

⁴⁵Luke Willcox Diary, September 19, 1844, Vol. I, p.13.

⁴⁶Edward C. Murphy v. James Cowey and Stuart Robinson, late partners in James Cowey and Company, Circuit Superior Court, KCCR (1853).

had been employed by George Warth as a car driver in his coal banks. Warth had refused to give the agent the full price of the hire for the young man because he considered him a raw or inexperienced hand. In the lease to Cowey and Company, Agent Woods secured no written contract but understood that Frank would be used as a coal car driver. The agent described the slave as a young Negro of small size, "rather below ordinary, was delicate looking." He estimated his value at \$500-550 in 1847.⁴⁷

Edward Turnbull, a native of Great Britain and a "practical Engineer of Locomotive & Stationary Engines," was manager of Cowey and Company manufacturing operations from 1845 to 1848. As manager, he had control of all slave labor at the furnace. Turnbull employed slave Frank at hauling coal, packing salt, and wheeling salt, but he found him too weak to perform these tasks efficiently. The manager then placed Frank on the steam engine as an operator, where the work was lighter. He attended the steam engine until the boiler explosion.

On Sunday morning, March 7, 1847, at 4 or 5 o'clock, the steam engine was stopped because Frank's slave partner, John, had boiled the boiler dry, melting the lead rivets in the bottom. Turnbull worked from the time that the engine had stopped until 1:00 P.M. replacing the rivets. Upon making this repair, he started the engine again. Turnbull ran the engine for one hour before placing John on duty as it was his tour (turn). (The slaves, John and Frank, had tours of six hours apiece through a 24-hour period). He remained with John for five minutes and left. Fifteen minutes after his departure, the boiler exploded. Meanwhile, in the fifteen minute interval before the explosion, John had left the scene and Frank had entered the engine house where he was killed by the blast. The manager, upon hearing the explosion, ran back to the site and saw Frank dead, but he did not find John immediately. Turnbull testified that the slaves stayed in a cabin 100 feet from the engine when not on duty, but that the company did not confine them there and permitted the slaves to run at-large.⁴⁸

The location of the salt industry on the Great Kanawha River, which furnished so many advantages for transportation, was a mixed blessing for slave owners. The existence of a body of water always presented the possibility of accidental drowning. More importantly, the westward flowing Kanawha River furnished an avenue of escape for bondsmen to the free state of Ohio. Kanawha Salines was relatively close to Ohio, and the constant passage of steamboats and other craft down the Kanawha River afforded a quick means of escape to fleeing slaves who did not want to take their chances on an overland flight.

Accidental drowning was an ever present threat to slave owners

⁴⁷ Deposition of Wiley P. Woods, September 28, 1852, in *ibid.*

⁴⁸ Deposition of Edward Turnbull, November 21, 1852, in *ibid.*

since the manufacturing center straddled the Kanawha River. Ann and Martin P. Brooks hired a Negro slave named Lewis to Hewitt, Ruffner and Company to be used as blacksmith, kettle-tender, coal digger, or in any other work connected with the "trade and business of salt manufacture." The company promised to use Lewis in a "reasonable and moderate manner." The Brooks family alleged that the company forced the slave to board a steamboat to labor "without the knowledge or consent of the owners." After completing blacksmith work aboard the *Tuckahoe*, the slave became intoxicated, fell overboard, and drowned. Upon the death of Lewis, his owners sued.

John Hays, the clerk of the steamboat who supervised the loading of salt barrels from sunset to 4:00 A.M., maintained that Lewis was not on the boat when he became intoxicated and drowned. Upon being cross-examined by the plaintiff's counsel, the clerk was unable to establish definitely the departure of the slave from the boat as 30 blacks whom he could not identify were working around the steamer. This point determined the decision of the jury which awarded the owners, Ann and Martin Brooks, \$1,000 damages for the full value of the slave.⁴⁹

The overland flight of slaves from the saltworks to Ohio was very frequent.⁵⁰ After the holiday season in 1834, there was a rash of runaways. Judge Lewis Summers reported to his brother in January 1835 that: "There seems to be some restlessness among the slaves of the salt works, and I thought more uneasiness in relation to that species of property than usual[.]" Two slaves had fled from a Mr. Fitzhugh. "On the happening of this occurrence, he shipped all the residue of his slaves to Natches and the lower markets. . . ." Moses M. Fuqua "lost three of his black boys, " but two were recovered and "pretty efficient measures adopted for the recovery" of the other one.⁵¹ In 1844, Lewis Ruffner advertised the escape of Gatewood, "supposed to be 25 or 26 years old, about 5 feet 7 inches high, tolerably black, speaks gruff when spoken to." Gatewood had run away from Ruffner's coal mine. "There is reason to suppose that he is lurking about in the neighborhood, but may if not soon taken up, make for Ohio."⁵² A Monroe County, Virginia, resident advised the law firm to which he was sending a slave to be sold to meet legal expenses to lodge the bondsman 'in jail for greater Security and that no notice Should be given him as I think he will be disposed to run[.]'"⁵³

⁴⁹ Deposition of John Hays, May 30, 1840, in Martin P. and Ann Brooks v. James Hewitt *et al.* doing business as Hewitt, Ruffner & Company, *ibid.* (1839, 1840).

⁵⁰ *Kanawha Banner* (Charleston, Va.), April 2, 1835; Luke Willcox Diary, June 18, 1848, Vol. II, p.2.

⁵¹ Lewis Summers to George W. Summers, January 8, 1835, George W. and Lewis Summers Papers, West Virginia Collection, West Virginia University Library.

⁵² *Kanawha Republican* (Charleston, Va.), July 23, 1844.

⁵³ J. M. Byrnside to Summers & Miller, December 17, 1846, George W. and Lewis Summers Papers.

Saltmaker John J. Cabell experienced much difficulty with one slave who desired to secure his freedom by escaping to Ohio. Black Jack ran away from the Cabell furnace to Ohio, but he was captured and placed in jail at Point Pleasant. After paying \$70 expenses to retake Jack from the Mason County jail, Cabell tried to sell him on the Ohio River, but no one desired to make an investment in a slave who was likely to flee. On the first night of the journey back to the Salines, Jack escaped again.⁵⁴ Shortly, he was recaptured a second time in Ohio. After expending another \$85, Cabell lodged Black Jack in the Kanawha County jail "awaiting an opportunity to Selling him to be carried to New Orleans."⁵⁵

One slave-hirer in Kanawha County protected his property from drowning or escape by water by inserting a restrictive covenant in lease agreements. Salt producers who leased his slave promised "not [to] suffer s[ai]d Negro to go on the river in any kind [of] Craft for employment."⁵⁶ Other slave owners were not so cautious. Francis Thompson leased a slave girl for service on the steamboat, *Daniel Webster*.⁵⁷

The steamboat, the primary vehicle of upriver transportation on the Great Kanawha, was a corrosive influence on the institution of slavery at the Salines. It furnished the possibility of quick mobility that overland flight did not. Steamers frequently employed slaves as stewards and cooks. Such slaves obtained a degree of freedom unavailable to the laborers at salt furnaces. The presence of steamboats would explain why slave-owners would attempt to keep their chattels away from river craft. Contacts with "liberated" slaves could corrode discipline when knowledge of distant ports on the Ohio and elsewhere was transferred. Steamboats transported ideas as well as merchandise.⁵⁸

⁵⁴John D. Cabell to Henry Ann Cabell, June 26, 1832, Jubal A. Early Papers, Library of Congress, Washington, D.C.

⁵⁵John J. Cabell to Richard K. Crallé, July 2, 1832, John J. Cabell Papers, Robert A. Brock Collection, Henry E. Huntington Art Gallery and Library, San Marino, California.

⁵⁶Lindsey Thomas, Administrator of John Thomas, v. Matthew Thomas and Levi Welch, Circuit Superior Court, KCCR (1825); Lindsey Thomas, Administrator of John Thomas, v. Van Bibber Reynolds and Robert M. Steel, Circuit Superior Court, KCCR (1825).

⁵⁷Francis Thompson v. Daniel Ruffner, Lewis Ruffner, Andrew L. Ruffner, Frederick Brooks, and Jefferson Donnally, County Court, *ibid.* (1835).

⁵⁸One case revealed the result when a slave, blessed with certain circumstances of ownership, worked on a steamboat. Solomon hired himself to the clerk of the *Ark* as a cook without the permission of his master, John Capehart of Coalsmouth (Saint Albans). Later, in 1845, Capehart talked with the captain of the *Ark* and gave his permission to Solomon's act provided that the slave shared his wages with him. Solomon quit working on the *Ark* and hired himself to another steamboat, the *Lelia*, as steward. He grew dissatisfied with his job on this boat and went on the *Medium* at Cincinnati. One of the owners of the *Medium*, Moses Norton, thought that Solomon was a free Negro. After he leased the steamboat for a three-month term to other parties, he found that the new cook

The Great Kanawha that so advantageously carried the produce of the Salines down its current brought an ascending, unwelcome visitor when the steamship eased two-way intercourse with Ohio River towns. The unwelcome visitor was Asiatic cholera, a dreaded scourge in the nineteenth century. Infectious cholera which inflicted upon its victims violent diarrhea and spasmodic vomiting, muscular cramps, dehydration (often cyanosis), and eventual collapse was a serious threat to life.

The first major epidemic of Asiatic cholera occurred in the United States and in Kanawha Salines in 1832. The disease was introduced into Atlantic seaports and passed to the Ohio River *via* the Great Lakes and the Ohio Canal which connected Cleveland and Portsmouth.⁵⁹ Diary and manuscript accounts indicate that Negro slaves were more affected by the epidemic than white residents of the saltworks. In the last of October, a Charleston newspaper reported that three slaves had died of the disease.⁶⁰ Commenting on the presence of cholera in mid-November, John J. Cabell, saltmaker and physician, lamented the loss of one of his slaves and reported that the effect of the disease was abating somewhat since the new cases appeared to be milder and many slaves were recovering.⁶¹ By the end of the month, Cabell wrote that there had not been any new cases for several days.⁶²

The outbreak of cholera seriously affected the slave labor supply available for hiring during Christmastime 1832. Cabell informed his son-in-law: “. . . a great many of the Negroes have been taken a way by their owners on account of the Cholera being here last fall, thinking it may come again next year. I have not yet hired half as many as I want.”⁶³

was a slave. He had learned this important detail from an agent of the administrator of the estate of John Capehart. While on the *Medium* under the employ of the lessee of the vessel, Solomon escaped into Ohio in 1847. The administrator of the estate of Capehart sued the owners of the steamboat for the value of the escaped slave. The jury found for the defense even though the plaintiff alleged that the boat owners knew that Solomon was a slave and had allowed him to labor upon the steamboat with consent. Elizabeth Capehart, Administrator of John Capehart, v. Moses Norton and Nelson B. Coleman, Circuit Superior Court, *ibid.* (1846).

⁵⁹Louis C. Hunter, *Steamboats on the Western Rivers* (Cambridge: Harvard University Press, 1949), p. 431; John P. Hale, *Trans-Allegheny Pioneers* (2nd ed.; Kanawha Valley Publishing Co., 1931), p.288. For a national view of the epidemic, see Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866* (Chicago: University of Chicago Press, 1962), pp. 13-39.

⁶⁰*Kanawha Banner* (Charleston, Va.), October 25, 1832.

⁶¹John J. Cabell to Henry Ann Cabell, November 16, 1832, Jubal A. Early Papers.

⁶²John J. Cabell to Henry Ann Cabell, November 25, 1832 and December 4, 1832, *ibid.*

⁶³John J. Cabell to Richard K. Crallé, December 30, 1832, John J. Cabell Papers, Robert A. Brock Collection.

In the summers of 1833 and 1834, cholera again arrived at the Salines. In July 1833, Dr. Cabell related to his wife in Lynchburg, Virginia, that “[t]he people dying around us everyday more or less with that fatal Epidemic the Cholera.” Business was suspended at the saltworks and the towns along the Ohio. Over one-half of the salt furnaces had stopped production because of the desertion of the labor force. The physician reported that five or six of his slaves, including his carriage driver, had the disease.⁶⁴ In the summer of 1834, the *Kanawha Banner* noted that cholera had killed a number of Negroes at the Salines.⁶⁵

The most serious epidemic of Asiatic cholera spread to Kanawha County in 1849.⁶⁶ This attack claimed an estimated 300 lives in the locality between April and August 1849.⁶⁷ In the single month of May, diarist and salt producer, Luke Willcox counted 45 deaths in the Salines alone.⁶⁸ Willcox departed for a timely vacation at Blue Sulphur Springs on June 22d and in a seven-day interval between his departure and the arrival of a letter from home, 30 persons had expired.⁶⁹ In mid-July, he estimated that approximately 100 people had died from cholera just in the Salines.⁷⁰

The existence of cholera and its effects caused some litigation and adaptation of succeeding slave-hire agreements. In behalf of Zalinda L. Davis, Agent John McConihay hired a slave named Jack to Crockett Ingles, a saltmaker, for the year 1849. Ingles had agreed to return the slave to his owner in the event of a cholera epidemic. When the disease struck the locality in the late spring of 1849, Ingles refused to surrender Jack to his owner. Jack caught cholera and expired on July 10, 1849. Upon the occurrence of this slave’s death, Ingles’ other hired slaves fled to their homes in eastern Virginia. Jack’s master, Davis, successfully sued the furnace operator in the Circuit Court because of noncompliance with the verbal agreement.⁷¹

After the 1849 outbreak, agreements for hire almost invariably contained provisions for slave safety in case of a cholera epidemic. Martha Stone of Bedford City, Virginia, hired two slaves, Jim and John, for \$325 for the year 1850 with the following reservation: “It is further understood that if the cholera should reappear in the salt works during

⁶⁴John J. Cabell to Richard K. Crallé, July 7, 1833, *ibid.*

⁶⁵*Kanawha Banner* (Charleston, Va.), July 31, 1834.

⁶⁶John P. Hale, *Trans-Allegheny Pioneers*, p. 288; Wyndham B. Blanton, *Medicine in Virginia in the Nineteenth Century* (Richmond: Garrett & Massie, 1933), p. 241.

⁶⁷Luke Willcox Diary, August 21, 1849, Vol. II, p.20.

⁶⁸*Ibid.*, May 30, 1849, p. 17.

⁶⁹*Ibid.*, June 29, 1849, p. 18.

⁷⁰*Ibid.*, July 13, 1849.

⁷¹Zalinda L. Davis v. Emiline Ingles, Administratrix of Crockett Ingles, Circuit Superior Court, KCCR (1852).

the present year that Mrs. Stone or her agent has permission to withdraw the said negroes deducting for the time so lost at the rate of 325\$ a year.”⁷² Warth & English promised to remove a hired slave “should the cholera prevail” with the owner deducting the time lost from the rent.⁷³

In the summer of 1850, Asiatic cholera again struck the Salines. In ten July days, 18 people died.⁷⁴ During the brief visitation, Green, a slave belonging to John Potter of Dickinson, Franklin County, Virginia, ran away from the salt firm of Warth & English. Commenting on the slave’s motivations and the future likelihood of flight, the firm cautioned his owner:

If you fear he will not return without an escort perhaps you would do well to Keep him at home as the next time he might take the other end of the road & once in Ohio we would not give a copper for the chance of him: he remained here during the Cholera season and left just at its close. We did not think at the time there was any cause for alarm & believe now that he only used it as a pretext to make a call on his old friends in Franklin.⁷⁵

A subtle control system imposed discipline upon the slaves in the Kanawha salt industry. Most tasks, including skilled positions, could be routinized, thus minimizing management costs and establishing a common discipline. In jobs requiring production of coal, barrels, and packed barrels, goals were easily set. Slaves in positions requiring skill and attention such as kettle-tenders and machinery operators worked on a time basis. If slaves met measured work requirements, they enjoyed considerable freedom to run at-large; however, the task size restricted the possibility to some degree. Owners and managers tendered incentives to encourage production. Payments for Sunday and holiday work caused slaves to endure continuous daily labor. Deferring payment until year’s end discouraged misbehavior and flight since the slave had accumulated something of value that was possessed by the manager and subject to his whim. A recalcitrant slave who refused to meet production goals could be employed in a wet room in the coal mine and could be subject to the ridicule of fellow workers. Saltmakers fostered a sense of pride and rivalry among the work force of the different furnaces. Veteran salt manufacturer, H. H. Wood, observed that overestimation of furnace output was quite common, “particularly by the hands,” because they try “to excel other furnaces—and to gain reputation—”[.]⁷⁶

⁷²Martha Stone v. William D. Shrewsbury and Henry H. Wood, *ibid.*

⁷³John Holland v. George H. Warth and Job English doing business as Warth & English, *ibid.*

⁷⁴Luke Willcox Diary, July 5, 1850, Vol. II, p. 33.

⁷⁵Warth & English to John Potter, July 24, 1850, in John Potter v. George H. Warth and Job English doing business as Warth & English, Circuit Superior Court, KCCR (1851).

⁷⁶Deposition of H. H. Wood, April 13, 1857, in Thomas R. Friend v. William J. Stephens, Abraham Williams, *et al.*, Circuit Superior Court, MCCR (1853).

The goals of production had priority over the interests of the slave. At most furnaces, a superintendent or manager (overseer) was responsible for operations. Since assessments of his performance would be based on production and efficiency, his primary concern would probably not be the condition of the labor force unless output was inhibited. The economic self-interest of a furnace owner or overseer did not dictate the kind treatment of hirelings to the extent that personally owned slaves required humane treatment for the protection of property. If a hired slave was abused physically or died from an industrial accident, the result would be non-renewal of the lease or the operator might entertain the fear of unsavory reputation and perhaps a costly legal controversy with a distant owner.⁷⁷

The food and clothing of Kanawha slaves were substantial and plentiful. The nature of the work required ample food and durable apparel and the presence of company stores with regular trade with Cincinnati insured the availability of a variety of articles. Clothing, "stout and coarse, suitable for rough work," consisted of summer cloth (pants and shirt), a blanket, one hat, one winter coat and pants, one winter shirt, socks, and three to six pairs of shoes and tacks. Bacon and corn-bread were the basic dietary staples, but flour, sugar, coffee, molasses, and vegetables accompanied this fare. Tea and rice were available to the sick. Allotments of food to slaves were not strict. Excluding meat, Thomas Friend, operator of two furnaces, tried to give his slaves what they would eat as "they labored very hard." He restricted meat to 1 1/4 pounds of side bacon and 1 1/2 pounds of shoulder per day to each slave.⁷⁸

With the extensive employment of hired slaves, the salt producers separated the owner from his chattel. The producer gained the free and almost unlimited supervision of the bondsmen away from the knowledge and watchful eyes of the owners. This separation was especially apparent with slaves from eastern Virginia. The gulf is detected by comments entered in the inventories of estates in Franklin County, Virginia. Before his death, Samuel Patterson leased a slave to a salt company. The appraisers of his estate reported: "Negro Man Amos (Known to us but now in Kanawha County, Va if in health)" was worth \$900.⁷⁹ In another estate, the administrators represented "that

⁷⁷ A Bedford County, Virginia, resident complained to his attorney that the knowledge was widespread in his locality that: ". . . Juries gotten up by Salt Makers and Men of influence at the Salines—who never fail to hang the Jury or find against a fereighner. . . ." Pleasant Purton to Summers & Miller, October 20, 1850, George W. and Lewis Summers Papers.

⁷⁸ Deposition of Robert Blaine, [no date], and Deposition of Obediah Crow, [no date], in *Early & Wife v. Friend Et Al.* (1857), I, pp. 230, 243, 275.

⁷⁹ Appraisal and Inventory of the Estate of Samuel Patterson, November 22, 1839, Will Book No. 5, p. 190, Office of the County Clerk of Franklin County, Rocky Mount, Virginia.

Man Squire who is now hired at the Kanawha that from the best information that we have we suppose to be worth '' \$400.00.⁸⁰ Such distance would tend to result in the harsher use of the bondsmen.

Although saltmakers hired slave labor for both skilled and unskilled jobs in their factories, most leased bondsmen were employed in the unskilled, dangerous occupation of coal mining and wheeling. The greater proportion of labor at a furnace was in the mine. The skilled slaves were often owned by the manufacturers and the higher rents paid for skilled workmen insured their usage at their trade. Thomas Friend, who owned a higher percentage of his hands than was usual, rented from five to fifteen slaves per year from 1846 to 1850. He employed every leased slave in his coal mine as a digger or wheeler.⁸¹

Bailors and bailees recognized that higher rents prevailed for slaves employed in the salt industry of the Kanawha Valley than elsewhere in the Upper South because of the increased possibility of accident or escape to Ohio. In a court case heard by the Supreme Court of Appeals of Virginia in the 1830's, the fact that slaves taken from Wood County to the Kanawha Salines hired for 25 to 30 percent higher was introduced as evidence.⁸² In 1838, slaves hiring for \$90 per year in Eastern Virginia could be leased for \$150 in Kanawha County. A resident of Louisa County wrote a friend, a saltmaker who had inquired about the slave market, a summation of attitude in his locality:

... in relation to hire likely men can be had at \$90 & from that downwards but I discover the people of this Country dont like to hire to the Kanawha people, it is a long distance & near the state of Ohio—a neighbor of mine for the last year or two hired to a Mr. Wilson a manager for some concern in your country & is not pleased. He Wilson gave a very enormous hire say \$150 & if the money had been punctually paid, in all probability it could have encouraged others—but if necessary you will pay the cash—but the distance and the contiguity to the state of Ohio will be an obstacle—⁸³

Some Kanawha petitioners to the Virginia General Assembly blamed these high lease prices on the activity of Ohio abolitionists.⁸⁴

Rentals varied greatly with the knowledge and skill of the individual slave in the salt business. Experienced and skilled workmen hired at higher rates than common labor. Age, sex, and physical condition would affect a slave's rental value. A first-rate boss kettle-tender or

⁸⁰ An Appraisement of the personal property of the Estate of Philemon Sutherland, August 4, 1848, Will Book No. 6, p. 379, *ibid*.

⁸¹ Deposition of Robert Blaine, [no date], in *Early & Wife v. Friend Et Al.* (1857), I, pp. 227-29.

⁸² *Spencer v. Pilcher*, 8 Leigh 383 (1836).

⁸³ James Michie to William [Tompkins], November 26, 1838, William Tompkins Papers, Roy Bird Cook Collection, West Virginia Collection, West Virginia University Library.

⁸⁴ Petition dated January 27, 1835, Legislative Petitions of Kanawha County.

blacksmith would lease for double the amount paid for a common laborer such as a coal hauler, salt packer, salt lifter, or salt wheeler. A good coal digger would bring a premium of \$25 over the rent of a common laborer.⁸⁵

Hire rents for slaves—although on an upward trend throughout the ante-bellum period—fluctuated widely and were quite sensitive to the economic condition of the Kanawha salt industry. In 1937, Professor Thomas Senior Berry conducted an important, comprehensive study of commodity prices in the ante-bellum Cincinnati market.⁸⁶ Basing his findings on available sources, Berry accurately plotted salt prices in that emporium and related these to Kanawha production. Despite the limitations of his sources that marred his narrative about the development of the Kanawha salt industry, Berry's production figures and price charts are accurate. He charted the monthly purchasing power of Kanawha salt in terms of general prices in the Cincinnati market from 1816 to 1860. Table II is a correlation of the hire rates of common slave labor to the annual purchasing power of Kanawha salt in the Cincinnati market for the period, 1844-1854, on Berry's chart.⁸⁷ This time period was selected because it is the only extensive span where there was sufficient slave-hire data. It should be emphasized that the hires were for common, not skilled, labor. (Also, the changes in purchasing power of salt were not as precipitous in actuality or on Berry's chart; this is caused by adaptation of annual percentages for this purpose).

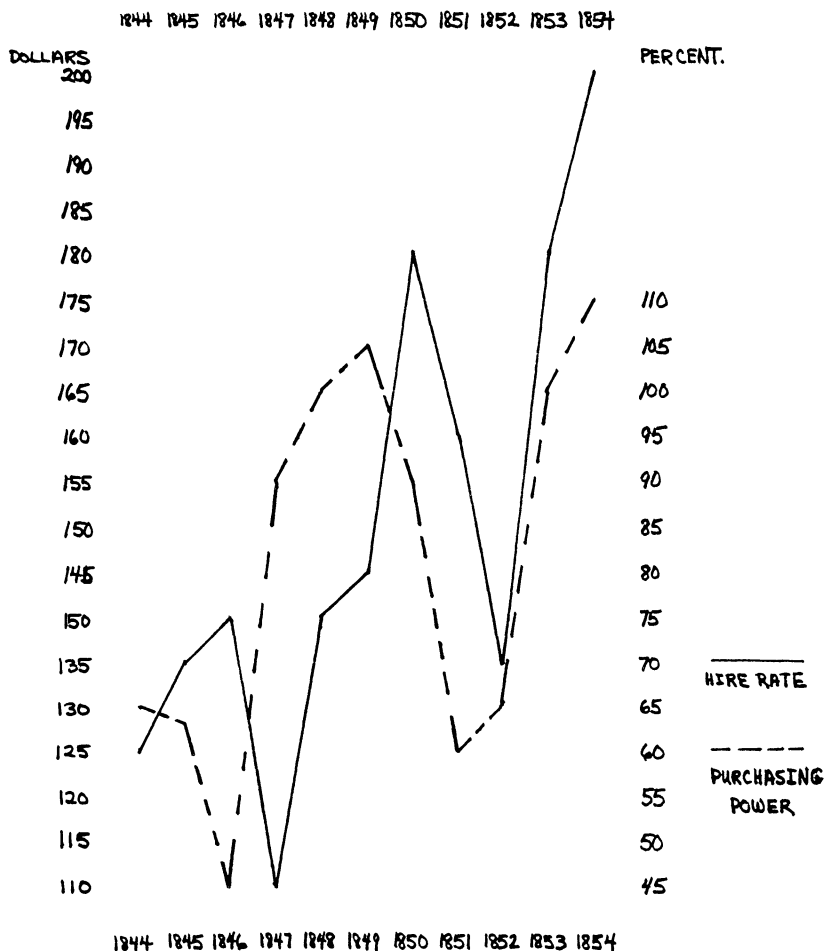
A very close correlation existed between common slave hire prices and the annual purchasing power of Kanawha salt in the Queen City market. This correlation would be even closer if the rent for each year were cast in the preceeding year when the contracts of hire were actually consummated. For example, the rate for the year 1847 could be placed in December 1846. This establishment of the hire rate in the contract in December for the following year accounts for the lag. For the purposes of this study, the diverse factors affecting production are ignored except to note that total salt production affected the annual purchasing power of the commodity. High production begot lower purchasing power; conversely, low production produced higher purchasing power in the next year which, in turn, affected rents. In the two years, 1846 and 1851, when the purchasing power of salt plummeted to its low point since 1844, common slave hires dropped to their lows in the following years, 1847 and 1852 respectively. When the purchasing power of Kanawha salt exceeded the 1824-46 purchasing power average of 100 percent in 1849, 1853, and 1854, slave hires also reached highs. This is not to suggest that the purchasing ability of salt

⁸⁵ Deposition of Robert Blaine, [no date], in *Early & Wife v. Friend Et Al.* (1857), I, pp. 222-23, 229.

⁸⁶ Thomas Senior Berry, *Western Prices Before 1861: A Study of the Cincinnati Market* (Cambridge: Harvard University Press, 1943).

⁸⁷ *Ibid.*, Chart XXVII, p. 304.

Table II—Relationship of Average Annual Hire Rates for Common Slave Labor in the Great Kanawha Salt Industry to the Annual Purchasing Power of Kanawha Salt in the Cincinnati Market, 1844-1854.



Sources:

Chart XXVII, in Thomas Senior Berry, *Western Prices Before 1861: A Study of the Cincinnati Market* (Cambridge: Harvard University Press, 1943), p. 304; J. P. Hale, "Salt," in M. F. Maury and William M. Fontaine, eds., *Resources of West Virginia* (Wheeling: The Register Co., 1876), p. 303; Deposition of Robert Blaine, [no date], in *Early & Wife v. Friend Et Al.* (1857), I, pp. 222-23; Deposition of John N. Clarkson, February 28, 1855, in *Thomas R. Friend v. William J. Stephens, Abraham Williams, et al.*, Circuit Superior Court, Mason County Court Records (1853); Luke Willcox Diary, January 1, 11, and 16, 1844, Vol. 1, p.1; January 1, 1845, Vol. 1, p. 17; December 5 and 30, 1847, Vol. I, pp. 54[64]-55[65]; December 25 and 26, 1848, Vol. II, p.10; December 31, 1849, Vol. II, p. 25; December 31, 1851, Vol. II, p. 55; December 27, 1853, Vol. III, p. 5.

Table III: Number of Slave Inhabitants of Kanawha County in 1850 and 1860 by Age and Sex

Year	Under 15		15-19		20-29		30-39		40-49		50-59		over 59		Total by Sex		GRAND TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1850	600	574	172	126	498	209	316	137	175	104	98	51	43	37	1,902	1,238	3,140
1860	507	424	108	101	221	165	160	118	113	66	77	39	48	37	1,234	950	2,184
Increase or Decrease	-93	-150	-64	-25	-277	-44	-156	-19	-62	-38	-21	-12	+ 5	0	-668	-288	-956

Sources:

Table I, Population by Counties, Ages, Color, and Condition, State of Virginia, *The Seventh Census of the United States*, pp. 252-56; Table I, Population by Age and Sex, and Table II, Population by Color and Condition, State of Virginia, *Population of the United States in 1860*. . . ., pp. 510-11.

was the sole influence on hire prices. Undoubtedly, the cholera epidemic of 1849 had some impact on hire rates for 1850.

In the ten-year period between 1850 and 1860, the salt industry of the Great Kanawha Valley suffered a severe decline—a depression that was unrelated to the labor system.⁸⁸ Only nine salt manufacturing establishments existed in 1860. The surviving companies employed only an average of 285 male and ten female hands in a month of operation.⁸⁹ Annual salt production was approximately a third of what it had been a decade before. While Kanawha County's white population increased between 1850 and 1860 to be second only to that of Ohio County in the area of present West Virginia, the slave population dropped dramatically because of the demise of the salt industry.⁹⁰ (See Table III). The total slave population decreased 30 percent from 3,140 to 2,184 persons. The male and female slave population decreased 35 percent and 23 percent respectively. The adjustment is more meaningful when one views the decreases in the prime male labor age groups: 15-19, minus 37 percent; 20-29, 55 percent downward; and, 30-39, a 49 percent drop. In fact, in Kanawha County, there were fewer slaves in 1860 than in 1850 in every age and sex category except for males and females over 60 years of age.

Contemporary salt manufacturers believed that slave labor was superior for their industrial needs because of cheapness, supply, and

⁸⁸ For the various complex reasons for the decline, see Stealey, "The Salt Industry of the Great Kanawha Valley of Virginia," Chap. IX, pp. 549-70.

⁸⁹ Schedule 5, Products of Industry, State of Virginia, Kanawha County, pp. 214-16, United States Census of 1860, Virginia State Library.

⁹⁰ Table II, Population by Counties, 1790-1870, State of West Virginia, *Ninth Census of the United States*, I, pp. 71-2.

stability. Saltmakers who were petitioners to the Virginia General Assembly asserted: "Slave labor is usually cheaper than free and for the business in which we are engaged it is believed to be the best."⁹¹ A comparison of costs of hired common slave labor and free white labor in the period 1850-1854 in Table IV reveals that slave labor was cheaper than free white. The comparison assumes that the latter was available, but in reality, free labor was scarce. The operation of the hire system eliminates questions about the cost of rearing slaves and care in case of infirmity and old age. The average hire for common slave labor for the period, a time of high rents, was \$170 per annum. In 1855, John N. Clarkson estimated that it cost a bailee approximately \$100 annually above the rental cost for board, clothes, taxes, and medical treatment for each leased slave.⁹² Table IV uses a higher estimate. The major extra cost was board, but it was customary at furnaces to furnish board to white laborers on the same basis as slave labor.⁹³ The slave lease always provided for the rental payment at the end of the hire period. This was, in fact, the loan of capital and labor for a one-year term. The employment of free labor could not be executed with this advantage, therefore, a six percent interest rate (a low estimate of the cost of money) on the monthly wage must be charged to free labor in calculation of costs. Management costs would be the same. John J. Cabell reported to his son-in-law in 1832 that the few white hands that he had hired required more supervision than all his slaves.⁹⁴ On the Kanawha, it was commonly assumed that a salt furnace operated at least 300 days annually. In 1854, R.C.M. Lovell deposed that the cost of free labor in Kanawha Salines was \$1.50-\$2.00 per day.⁹⁵ Taking the lower figure, the yearly wage of a free white laborer was \$450. One can readily see that hired common slave labor was cheaper than free. If one assumed the free labor to be skilled, the hire of the common slave can be doubled as in the case of a boss kettle-tender and there remains a marked differentiation. The wage of the free laborer could be reduced to one-half and the result is the same. One can understand why Kanawha salt producers preferred hired slave labor.

Kanawha saltmakers preferred to lease slaves because they could maintain lower costs and flexibility. Less capital could be invested in

⁹¹ Petition dated January 27, 1835, Legislative Petitions of Kanawha County.

⁹² Deposition of John N. Clarkson, February 28, 1855, in Thomas R. Friend v. William J. Stephens, Abraham Williams *et al.*, Circuit Superior Court, MCCR (1853).

⁹³ Account of Samuel Watson & Company with Samuel Watson, November 1, 1844—December 25, 1845, Charles G. Reynolds v. Samuel Watson, Circuit Superior Court, KCCR (1847).

⁹⁴ John J. Cabell to Richard K. Crallé, May 16, 1832, John J. Cabell Papers, Robert A. Brock Collection.

⁹⁵ Deposition of R. C. M. Lovell, September 5, 1854, in Thomas R. Friend v. William J. Stephens, Abraham Williams *et al.*, Circuit Superior Court, MCCR (1853).

Table IV: Comparative Costs of Hired Common Slave Labor and Free White Labor, Great Kanawha Salt Industry, 1850-1854.

	Hired Slave	Free White
Rent or Wage	\$170.00	\$450.00
Board	75.00	75.00
Clothing	24.00	
Medical Care	5.00	
Taxes	1.00	
Deferred Interest on Rental at 6%		53.48
Total Cost	\$275.00	\$578.48

Sources:

Luke Willcox Diary, December 27, 1853, Vol. III, p.5; Deposition of John N. Clarkson, February 28, 1855, and Deposition of R. C. M. Lovell, September 5, 1854, in Thomas R. Friend v. William J. Stephens, Abraham Williams, *et al.*, Circuit Superior Court, Mason County Court Records (1853); Deposition of Robert Blaine, [no date], in *Early & Wife v. Friend et al.* (1857), I, pp. 222-23.

human property and manufacturers could adjust their labor needs on an annual basis. The payment of rents in December came at a convenient time since saltmakers were often short of operating capital and the greatest salt sales occurred in autumn before the slaughtering season. In 1833, John J. Cabell, a large slaveowner from Lynchburg, Virginia, who manufactured salt, wrote that it was an established rule on the Great Kanawha River that if an able-bodied young male slave could be hired at 20 percent or less of his value per year that slave would be cheaper to lease than to purchase.⁹⁶ Incompetent workmen could be returned on the basis of misrepresentation or they could be allowed to find other bailees at the expiration of the lease term. Loss in case of accident could be minimized by leasing slaves because it was not one's own property being killed or maimed. The only threat was a law suit, but an adverse result could be defeated on appeal, delayed, or avoided with the plaintiff residing in a distant locality.

In light of recent debates of historians concerning the question of the economic efficiency and function of slave labor, the Kanawha salt industry provides an interesting case. Historians usually pose the question about the alternative use of free white or slave labor—a choice not confronted by western Virginia entrepreneurs. In the Salines, there never was enough free labor available for employment in all phases of

⁹⁶John J. Cabell to Richard K. Crallé, December 28, 1833, John J. Cabell Papers, Robert A. Brock Collection.

the salt industry. The real alternative was between no or insufficient labor or slave labor, and the manufacturers did not hesitate to make the necessary choice. The evidence indicates that Kanawha producers preferred slave labor. There is no sign of ethical opposition or question in the matter. Transient free labor could not be depended upon for salt production. Slave workmanship was adequate in an enterprise where most jobs were routine. Slaves learned to tend kettles, cooper, dig coal, haul and pack salt, load boats, and drive teams as well as free labor. Incentive was not a problem since subtle rewards were provided and production was easily measureable. What was most needed at a salt furnace was a stable supply of workmen and slaves fulfilled the requirement. In a court case which arose in Mason County, Virginia, in 1853, expert testimony on the cost of erection and operation of salt furnaces was required in order to settle a controversy between the developers of the West Columbia saltworks. Kanawha saltmakers consistently testified by deposition that the Kanawha manufacturing establishments operated more cheaply than those on the Ohio River because of the lower cost and stability of the slave labor supply.⁹⁷ The West Columbia saltworks could not retain free white labor for long periods as it hired workers by the day and month.⁹⁸

Slavery in the Great Kanawha Valley salt industry differed greatly from the stereotyped institution usually described by historians as prevailing on the Southern plantation. The extractive salt industry that depended upon the surplus chattels of the Upper South was an exceptional phenomenon in a period when the interstate slave trade funneled most excess slaves to the Lower Mississippi markets. The Kanawha slave system might be considered to some degree as an appendage of the Eastern Virginia slave economy. The institution of slavery is often viewed as an inflexible system with the inability to adjust to economic conditions. Though the extant manuscript record is incomplete, the system demonstrated a remarkable ability to meet the industrial and economic requirements of the Kanawha salt producers.

⁹⁷Depositions of R. C. M. Lovell, September 5, 1854; Nathaniel S. Brooks, February 23, 1855; and, John N. Clarkson, February 28, 1855, in Thomas R. Friend v. William J. Stephens, Abraham Williams, *et al.*, Circuit Superior Court, MCCR (1853).

⁹⁸See statements of account for evidence of payment of employees for very short terms and of the rapid turnover of personnel, *ibid.*