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Milling In Rock Creek Park

General Background

by Charles H. McCormick



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FOREWORD

In accordance with Historical Resource Study Proposal NNCP-H-2, this report essays to provide general and specific information relative to the various mills and mill-sites that have existed along Rock Creek within the confines of the present Rock Creek Park and the National Zoological Park. Time available for this study precluded an intensive day-by-day examination of the local newspapers for the nineteenth century or a detailed examination of the land records of each of the mill-sites. However, the major local history collections, will records, census data, park files, and secondary sources have been canvassed. Barring the discovery of hitherto unavailable collections of personal papers relating to the Peirce family, it seems unlikely that we can know a great deal more about the specific story of Peirce Mill than appears below.

Staff members at the National Archives and at the Columbia Historical Society were particularly kind to me in the course of my researches. Of course I am responsible for any errors of fact or interpretation.

Charles H. McCormick

TABLE OF CONTENTS

	Page
Thee Background: The Rise and Fall of the Chesapeake Bay Miller, 1621-1890	1
The Rock Creek Mills, 1790-1897	21
Lyons or Federal Mills	22
Columbian or John Quincy Adams Mills	27
Peirce Mill and Peirce Plantation	32
Blagden's or Argyle Mills	47
Other Manufactures on Rock Creek	49
A Final Note	54
Appendix	56
Bibliography	63
Maps and Illustrations	68

LIST OF MAPS AND ILLUSTRATIONS

	Page
Lyons Mill	68
Blagden's Mill	69
Plat of Peirce Mill Road (1864)	70
Plat of Argyle, Cowall, and Lorn (1875)	71
Plat of Lyons Mill Seat (1878)	72
Plat of Paper Mill Tract (1868)	73
Map of Adams Mill and Vicinity (1892)	74

Peirce Mill is the principal relic of Peirce Plantation and of a once-flourishing agricultural commerce along Rock Creek.¹ It is a symbol of the nineteenth century, when America was predominantly rural and her major industries were devoted to transporting, processing, and selling the produce of the land. It represents an era before the widespread use of steam, when man supplemented his own strength with that of domestic animals and with the natural force of wind and flowing water. It recalls an age when grist mills dotted the landscape and graced the banks of countless streams from the Atlantic to the Great Plains. It signifies a time when Washington was a "city of magnificent distances," a cluster of aspiring villages, the quiet Capital of an optimistic, vital, and growing United States. Peirce Mill is a bench-mark to gauge the changes that have taken place in Washington and to measure the distance between yesterday and today.

The Background: The Rise and Fall of the Chesapeake
Bay Miller, 1621-1890

Where grain is grown for human consumption it must be milled. Evolving from a simple mortar and pestle device for pulverizing grain, water-powered mills were known to the Romans. The miller's

1. The spelling "Peirce" has been adopted for this report. This spelling is used consistently in the will of Isaac Peirce, Abner C. Peirce, Peirce Shoemaker and on the Peirce family vault in Rock Creek cemetery.

ancient and honorable trade was well established in Europe by the time of the discovery of America and it was brought to the earliest English colonies.² Evidence of power grain milling in the Chesapeake Bay region dates to the early seventeenth century. Virginians built a wind mill in 1621. Thirteen years later a water-driven mill was constructed near the St. Marys settlement in Maryland. Others soon followed. Doubtless these early mills were primitive affairs serving to grind Indian corn (maize) into meal. The first evidence of mills for making flour from European cereal grains--wheat, oats, and rye--appeared in 1671, when the Virginia assembly set a miller's toll on grain other than maize at 1/8 the amount brought to the mill.³

In spite of official encouragement, the milling industry developed slowly in the settled areas of Virginia and Maryland until about 1750. Streams were plentiful. There was power available to turn hundreds of mill wheels. In the Northern colonies, particularly New York, flour milling had already become an important industry.

2. Peter T. Dondlinger, The Book of Wheat: An Economic History and Practical Manual of the Wheat Industry (New York, 1908), pp. 267-68, is a useful capsule account of changes in milling techniques from Roman times to 1875. The term "milling" is used here to mean grist and flour milling. In colonial times a mill was any contrivance for turning machinery by wind, water, or animal power. Water-driven mills ground not only corn, wheat, and other grain, but rags, plaster, powder, malt, flaxseed, chocolate, mustard, bone, and also bored rifles and slit iron. See Victor S. Clark, History of Manufactures in the United States, 5 (New York, 1929), 174-75.

3. Charles B. Kuhlmann, The Development of the Flour-Milling Industry in the United States with Special Reference to the Industry in Minneapolis (Boston, 1929), pp. 27-28 and Phillip A. Bruce, Economic History of Virginia in the Seventeenth Century, 2 (New York, 1935), 489-90. The standard miller's toll on maize was 1/6, but enough millers evaded it to require legislation in Virginia ordering that a set of accurate scales be kept on the premises of each Virginia mill. *Ibid.*, pp. 487-88.

But in Maryland and Virginia only a small quantity of corn and wheat was grown.⁴ Instead, tobacco became established as the staple crop of the Tidewater planters. Grown for export, tobacco could make a man rich--if the weather, the Atlantic passage, and European market conditions permitted. More often riches did not materialize and hopes for economic independence remained only dreams. But British merchants wanted tobacco and almost every landowner in the Tidewater cultivated as much as he could. So important was tobacco that the fate of the annual crop was virtually the fate of the Tidewater economy. People talked the weed, thought the weed, and paid their debts with it as legal tender. In such a situation there was little hope for diversified agriculture. Exacerbating the difficulty, tobacco culture required considerable tedious labor. Free labor was scarce and expensive. After about 1700 planters increasingly solved the problem of high labor costs by utilizing Negro slaves. Free labor was thus further discouraged in the Chesapeake Bay colonies and the development of a diversified economy further impeded. About the middle of the eighteenth century two developments--soil exhaustion and the settlement of the Piedmont region--caused a gradual shift away from tobacco toward wheat and corn production.

4. Flour was so important in colonial New York that in 1664 flour barrels and windmills were incorporated in the design of the city seal. John Storck and Walter D. Teague, Flour for Man's Bread (Minneapolis 1952), p. 150.

Soil exhaustion was the result of rapid erosion due partly to natural conditions and partly to wasteful agricultural practices, particularly the depletion of soil nutrients because of repeated replanting of tobacco in the same fields.⁵ The process of soil exhaustion had been going on since the early years of the colonies, when land was cheap and seemingly inexhaustible. By the mid-eighteenth century Tidewater lands were about used up for tobacco and when the planters began to seek a new staple crop they turned to grain, primarily wheat and corn.⁶

A second development that stimulated the growth of flour-milling was the settlement of the Piedmont. This was the region beyond the fall line of the many streams flowing from the Alleghanies to the sea.⁷ Piedmont soil was different from that of the Tidewater

5. Tobacco culture rapidly depleted soil nitrogen. Soils in the Potomac River region were particularly susceptible to erosion when the woods were cleared. Heavy rainfall, a warm climate, and soil composed of mixed loams, silts, and clay loams combined to encourage rapid soil nitrification and retard sod formation. The run-off of rain in the region is illustrated by the wide variation in the discharge of Potomac into the sea--from 900 to 219,000 feet per second. Avery O. Craven, Soil Exhaustion as a Factor in the Agricultural History of Virginia and Maryland, 1606-1860, University of Illinois Studies in the Social Sciences, 23(Urbana, Ill., 1925), pp. 26-32.

6. *Ibid.*, pp. 66-67. Planters also tried indigo, hemp, flax, and cotton, but none of these proved as successful as corn and wheat. See Thomas J. Wertenbaker, The Old South; the Founding of American Civilization (New York, 1942), pp. 152-53.

7. The Piedmont plateau (between the fall line and the Appalachians) is no more than 30-60 miles wide in Maryland but it reaches a width of 175 miles where it crosses the border from Virginia to North Carolina. Craven, pp. 25-26.

and development of the area's economy posed different problems.⁸ Lack of natural transportation routes was perhaps the major impediment to trade.⁹ In the Tidewater ocean-going vessels (much smaller then than now) could follow the excellent network of small streams to the very doorsteps of many plantations to load hogsheads of tobacco. Small planters could bring their tobacco into river ports such as Georgetown over "rolling roads." In sum, few areas were far from a navigable stream. But beyond the fall line deep water vessels could not navigate. Eventually railroads and canals would bring cheap transportation to the interior. But such developments lay in the future.

If the Piedmont farmers were to market their surplus crops, the crops must be made as compact and durable for transport as possible. Under such conditions wheat reduced to flour and corn to meal or whiskey were natural staples. More important, the Piedmont soils and climate were better suited to corn and wheat than to tobacco and many settlers had come to the area over the Great Valley Road from the Pennsylvania wheat country. It was not surprising therefore that the cultivation of soft red winter wheat spread rapidly with the settlement of the region.

The increased grain production caused the proliferation of grist mills until nearly every community had its mill.¹⁰ Up to the close of the

8. Kuhlmann, p. 33.

9. Ibid., p. 38, and Storck and Teague, pp. 150-51.

10. In 1795, an incomplete count of Maryland flour and grist mills showed a total of 180 mills against only 92 taverns, 11 iron forges, and 9 iron furnaces. There were two Peirce Mills: one in Baltimore County at Little Gunpowder Falls and one in Kent County seven miles east of Amsterdam. They appear on the Dennis Griffith map. See Louis J. Kuethe, "A List of Maryland Mills, Taverns, Forges and Furnaces of 1795," Maryland Historical Magazine, 31 (1936), 155-65.

eighteenth century most mills were "custom" mills, grinding grain on demand for individual farmers. On each farmer's grain the miller collected a toll. Undoubtedly most of these mills were small, serving the immediate needs of farmers within a radius of 8-10 miles. They might bring their grain to the miller, wait around exchanging opinion and smoking while he ground their grain into meal or flour, and then grumble that he took an unfair amount of their hard-earned crop. Distrust of the miller was deeply embedded in European and American folkways, and the colonial governments of both Virginia and Maryland regulated his toll. But the miller had his problems, too. His work was irregular and his business future was dependent upon the success or failure of the local crop. Often milling alone was not sufficient to support him and his family and he had to supplement his income by farming or trading.¹¹

It is rightly said that the miller was the predecessor of the engineer, but these eighteenth century mills were mostly jerry-built affairs by modern standards and production was inefficiently carried on. The various processes required to turn bushels of wheat into barrels of flour were poorly integrated. The mill site was usually the bank of a small stream. Here the miller, or if he was able to afford such services, the millwright, threw up a wooden or stone dam sufficient to raise the level of the stream enough to force water on demand through a narrow inclined channel or mill race to the mill wheel.

11. Storek and Teague, pp. 146-47.

The force of the water turned the millwheel, which by a comparatively simple system of wooden axle shafts and gearing turned one or more upper or runner mill stones over an equal number of stationary lower or nether stones. A working pair of millstones was known as a "run" of stones or a burr (buhr). By adjusting the distance between the upper and lower stones, different kinds of grain could be ground. The waterwheel of the mill was usually of the easy to construct but relatively inefficient "undershot" variety. The mill building was most often of wood. Other structures usually associated with these early mills included a granary or grain storage facility, a building to house bolting equipment, and, if the mill were an elaborate one, bread baking ovens and a cooper's shop for making flour barrels.¹²

¹². George R. Taylor, The Transportation Revolution, 1815-1860 (New York, 1951), p. 209, and Storck and Teague, pp. 161-63. The best mill stones came from Europe, and those from the Rhine River Valley were most highly esteemed. But domestic stones were also used, particularly for grinding corn. Clark, I, p. 178. The "dress" or sharpening of the grooves of the millstones was a laborious job and was required as frequently as every two or three weeks. It took two or three days to dress a pair of stones properly. A "dresser" in Europe was a traveling craftsman highly respected for his skill. According to Storck and Teague, p. 105, the phrase "to show one's mettle" derives from "to show one's metal." Metal is a term for crushed stone in England and the saying referred to crushed stone embedded in the left hand of an experienced dresser. Flour barrels contained a standard 196 pounds of flour. Penalties could be exacted by local flour inspectors for each pound short weight. Eighteen ninety-eight District of Columbia specifications required a barrel to have a head diameter of 13 inches, 10-12 hoops, staves at least 27 inches long, and the empty barrel to weigh not less than 16 pounds. The Code of the District of Columbia to March 4, 1929 (Washington, 1930), p. 227.

Because of the primitive techniques used, the capacity of a colonial mill seldom exceeded 100-200 bushels of wheat per day. The low efficiency of the undershot wheel and the piecemeal system of production were responsible for low capacity. Each of the various processes required to transform threshed wheat from the farmer's wagon into barrelled flour was a separate operation, requiring a number of workers each performing a single task or a single worker performing each separate task in sequence. The work was difficult and dangerous. The miller had to carry the grain into the mill and hoist it from the granary to the hopper over the mill stones. After grinding, which was actually the only operation performed by water power, he had to shovel the grist into tubs to be hoisted for bolting. He had to watch the bolting operation carefully, and then mix and barrel the bolted material. During the whole process, especially near the moving mill machinery, he had to remain alert. A false step, a careless second and the machinery might catch him and crush him to death. Another hazard was fire. Stored grain and flour dust were flammable and the friction in carelessly lubricated wooden machinery or spontaneous combustion could generate the heat to start it.¹³ But for all its attendant difficulties and hazards, flour milling, if the miller or mill-owner was a sagacious businessman, could be a springboard to success. Many mills were the nuclei of towns and cities, the beginnings of

13. Storck and Teague, pp. 161-63; Clark, 1, pp. 178-79, Eric Sloan, "The Mills of Early America," American Heritage 6(1955), 105.

general stores, and the source of large commercial fortunes. In the Chesapeake Bay region, few fortunes were made before the American Revolution, but many were begun after.

The Revolution stimulated commerce and flour production in the Chesapeake area. The Continental Army, like others, traveled on its stomach. It required large quantities of breadstuffs. The ravages of war, the disruption of normal grain and flour sources (for example, the loss of New York City and the British occupation of Philadelphia and New Jersey) threw much of the burden of supplying the armies upon the southern States. Thus Alexandria, Virginia, became a natural collecting point for supplies flowing northward, and Baltimore profited immensely by the dislocation of northern commerce.¹⁴ These two previously very minor ports grew in importance enough to make feasible regular thrice-weekly overland communications. Circuitous as it may seem, the route passed up the west bank of the Potomac to the Georgetown ferry, across the river through Georgetown, through Rock Creek at a ford near the present P Street Bridge to Bladensburg and thence northeastward to Baltimore.¹⁵

14. Robert A. East, Business Enterprise in the American Revolutionary Era. Studies in History, Economics and Public Law No. 439 (New York, 1938), pp. 172-75. Alexandria became an important speculative wheat market. Leading merchants in the city were Jenifer and Hooe, Fitzgerald and Reis, Harper and Hartshorne, Josiah Watson. Interestingly, all these men had Quaker Pennsylvania connections. So did Isaac Peirce of Peirce Mill.

15. *Ibid.* and Oliver W. Holmes, "Stagecoach Days in the District of Columbia," Records of the Columbia Historical Society, 50(1952), 11.

Early in the Revolution Georgetown showed little interest in flour, for the town's merchants specialized in tobacco. Although Georgetown was a minor port, it was the largest tobacco market on the Potomac. By 1780, however, Georgetown merchants began to heed the examples of Baltimore and Alexandria. In that year a merchant flour mill (one that bought grain and sold flour) was established. And as wheat production in Frederick, Washington, and Montgomery Counties grew more and more grain and flour found their way to Georgetown wharves. Although it was not until 1840 that flour-milling became the principal Georgetown industry, by the end of the Revolution the prospects for milling in the Georgetown area were promising.¹⁶

National independence meant freedom from the British Navigation Laws that had limited the markets for American goods. It meant that flour might be shipped to the Carribean, to South America, and to the continent of Europe. Westward expansion would bring new lands under cultivation and produce would flow eastward along the major rivers to fall line ports such as Georgetown. At least this was the hope. Milling along Rock Creek in the nineteenth century was one expression of that hope.

Prior to the creation of the District of Columbia by Congress in 1790, Rock Creek was but one of a number of small tributaries of

16. Kuhlmann, pp. 40-45; Lewis C. Gray, History of Agriculture in the Southern United States to 1860 (Washington, 1933), pp. 608 and 773.

the Potomac River. Originating about 15 miles up country it wound picturesquely through a wooded, deepening valley to empty into the Potomac just below Georgetown. Its association with Georgetown--its mouth marked the site of Gordon's tobacco warehouse from which the town grew and that the creek would limit the eastward expansion of the little town--was all that distinguished it. Other nearby Potomac tributaries (the Eastern Branch and Goose Creek or the Tiber) held more potential commercial possibilities than did Rock Creek. Still it was obviously a potential source of water power for mills and the lands near it were rich in timber and would yield good crops.¹⁷ The creation the Federal District coupled to the earlier commencement of the Potomac Company's grandiose scheme for extending navigation of the Potomac and its major tributaries from the fall line to near Pittsburgh encouraged men of commerce--merchants, manufacturers and millers--to settle and set up business in the area. For as Jedidiah Morse wrote in 1794:

The situation of . . . [Washington] is upon the great post road, equi-distant from the northern and southern extremities of the Union, and nearly so from the Atlantic and Pittsburgh, upon the best navigation and in the midst of a commercial territory, probably the richest and commanding the most extensive resources of any in America.¹⁸

17. The soil of the District was not particularly fertile except along the stream valleys, but it was capable of producing a variety of products including tobacco, corn, wheat, sweet and Irish potatoes, truck garden produce, fruits, and wine grapes. [William M. Morrison], Stranger's Guide to the City of Washington (Washington, 1852), p. 21.

18. Jedidiah Morse, The American Geography, or a View of the Present Situation of the United States (London, 1794), p. 469.

The period 1790-1870 was the heyday of what is known as "old process" flour milling in the United States and of the primacy of Maryland and Virginia as wheat producing states. The old process was not very different from the colonial process. Waterpower still turned wooden axle-trees and gears which in turn caused burr stones to rotate over stationary nether stones. But thanks to a Delaware inventor with passion for gadgetry, it became possible for one man to do the work that seven had done and thus speed up production and increase profits.

In 1795 the inventor Oliver Evans (1755-1819) published The Young Mill-Wright and Miller's Guide.¹⁹ Before 1850 this book incorporating Evans' improvements would go through 13 editions. According to Thomas Jefferson, who opposed Evans' patent, the inventions amounted to nothing more than a chain of buckets and the application of the well-known principle of the Archimedes screw. Even so, no one before Evans had put these simple ideas together to produce such practical results. Specifically his improvements were the elevator, conveyor, drill, descender and hopper-boy. Taken as a whole they integrated all the mill processes. Moveable spouts allowed the flow of flour and grain to be directed to various sources. A conveyor belt of buckets allowed grain to be lifted into storage above the mill stones

¹⁹. Evans was born near Newport, Delaware, and apprenticed at 16 to a wheelwright. At 22 he was making wire teeth and cards for cotton and woolen mills. Among his other inventions and conceptions were: a long stroke steam engine (in principle similar to those later used in locomotives), a screw grinder to make fertilizer from plaster of paris, a steam dredge, a process for making artificial ice, and one for extracting turpentine. Storck and Teague, p. 161.

and smoothed the operation of the mill machinery by placing a constant load on it. Automatic bolting using finer screens produced finer grade flour. The Evans mill improvements included not only mechanical inventions but also businesslike book-keeping, rational organization of labor, and the application of physical principles to increase the usable waterpower, for example, the stress on the importance of the use of the efficient overshot wheel.²⁰ By rigorously applying the Evans improvements, a miller could become a good businessman and make the most of the possibilities of his mill. And many millers did just that.

The period between the foundation of the United States under the Constitution and the outbreak of the Civil War was characterized so far as the story of milling was concerned by the rise of the merchant mill to gradually attain primacy over the custom mill. While large numbers of custom mills continued to survive doing business with individual farmers on demand and for a toll, merchant mills (generally larger than custom mills) became important in the growing flour export

business.²¹ In the Chesapeake Bay region, Richmond with its several

20. Dondlinger, pp. 267-68; Storck and Teague, pp. 160-66.

21. As the nineteenth century advanced, the difference between the "custom" and "merchant" mill became the difference between the farmer and the city merchant. The economic reasons were obvious. Merchant mills grew up where capital accumulation could finance large production units and where transportation enabled merchant mill operators to obtain large quantities of wheat and ship it cheaply to distant markets. Custom mills were generally those isolated from crucial transportation facilities. In these terms the Rock Creek mills above Georgetown (Peirce and Blagden's were clearly destined to remain small custom, country mills. Neither was on a main road or a navigable stream. And after about 1840 there were many better water power sites available in Georgetown on the Chesapeake and Ohio Canal.

very large merchant mills and Baltimore with her many smaller mills were the principal flour-milling centers.²² But Georgetown and Washington, too, did a thriving business in flour. This was particularly true in the 1830's to 1850's when wheat production in Western Maryland and Virginia was at its peak and the Chesapeake and Ohio Canal not only provided a highway to carry grain cheaply down the river, but also provided waterpower along the Georgetown waterfront to operate a growing number of substantial merchant mills.²³

Still, neither Georgetown nor Washington developed into the major commercial center that local boosters had envisioned. Partly this was due to insufficient available capital, partly to wasteful competition between Alexandria, Washington, and Georgetown, and partly to the slow progress westward of the Chesapeake and Ohio Canal and the rapid success of the Baltimore and Ohio Railroad, which ensured Baltimore's commercial supremacy in the region. The commercial influence of Philadelphia was another factor. But if the Federal District did not become a great commercial center, the flour trade was important.

The importance of milling in the District between 1790 and 1870 is measurable. In 1801 the local newspapers kept a close watch on the

22. After 1828, Baltimore completely ran away from competing cities in the region. The Baltimore and Ohio Railroad was able to tap the wealth of the wheat lands of the Potomac Valley, and Southern Pennsylvania. But her hegemony began earlier. In 1805 there were 18 mills in Baltimore and by 1825, 50. Kuhlmann, pp. 40-45. Richmond drew its wheat from southern Virginia and ground it at some of the largest United States mills of the time. Five or six stories high, the Gallego Mills, Haxall's Mills, and the Rutherford Mill dominated the Richmond waterfront. Wertenbaker, pp. 152-53.

23. Richmond's Columbian Mills alone produced 48,009 barrels of flour in 1834. Taylor, p. 210.

Baltimore and New York flour markets. The National Intelligencer noted that the former had shipped over 100,000 barrels in the last quarter of 1800, and the latter about 250,000 for calendar year 1800.²⁴ In 1810 the produce of grist mills was the second most important manufacturing endeavor in the District, totalling \$211,250.²⁵ By 1840 it was the dominant industry but the value of flour produced was only \$176,870. The canal providing transportation and improved farming methods including more efficient threshing, deeper plowing, and the use of fertilizers, particularly plaster of paris (gypsum), increased the amount of grain available for sale, but the competition of other centers--Richmond and Baltimore, Rochester, Cincinnati, and after 1840, St. Louis--led to a lowering of grain prices, particularly in the South. A barrel of flour that brought \$9.10 in 1816 would bring only \$5.89 by 1860.²⁶ The success of the crop, European demands, the competition from other parts of the country, all influenced flour prices and there was considerable fluctuation. Prices were generally high from 1800-1805, low during Jefferson Embargo period, 1806-1809, and high again until the effects of the War of 1812 were felt in 1813 and 1814. After the war prices were high until the bottom dropped out

24. Washington Daily National Intelligencer (Jan. 7, 21, 1801). In the Jan. 7 issue Jesse Hollingsworth advertized for sale "Cologne Mill-stones, of different sizes late from Amsterdam" at the Baltimore City Wharf.

25. Other valuations of District manufactures were \$20,000 in cotton cloth, \$60,000 in fur hats, \$36,000 in glass, \$232,200 in products of ropewalks. Carroll D. Wright, "The Economic Development of the District of Columbia," Proceedings of the Washington Academy of Sciences, 1(1899), 172.

26. *Ibid.* Between 1800 and 1840, Georgetown tobacco had declined and then flour emerged as the principal industry.

after the depression known as the Panic of 1819. From that year until 1834 they stayed low. From 1835-1838 was a period of high prices and then once again they dropped off following another depression (known as the Panic of 1837) and did not recover for 12 years. Then from 1853 until the Civil War wheat prices remained high.²⁷ In 1860 flour-milling ranked fourth among U. S. industries. It was worth over \$248,000,000 and employed 27,682 people.²⁸

The effect of general trends in milling upon Rock Creek's major industry during the ante-bellum period was probably less important than local developments. Until the construction of the Chesapeake and Ohio Canal through Georgetown, Rock Creek was a fine site for water powered mills. But when, in 1837, the Canal company began to officially lease water to operate manufacturing establishments, it was obvious that the local milling center and the larger mills would develop there.²⁹ After 1840 in the nineteenth century there was always a cluster of flour mills on the canal, some of them with many times the capacity of any mill on Rock Creek. The canal mills had a number of advantages over the Rock Creek mills and foremost among these was their location on an artery of commerce that enabled them to off-load wheat from canal barges and load

27. Gray, p. 1039. The introduction of Peruvian guano about 1845 greatly stimulated local grain production, J. Thomas Scharf, History of Western Maryland, 1(Philadelphia, 1882), 653.

28. Taylor, pp. 243-244; Gray, p. 817; Apparently the improvement in the flour business was noted in Washington in the early 1850's for Morrison's Guide for 1852 (p. 152) reported that two more flour mills were needed in Georgetown.

29. Water from the canal was probably used unofficially as early as 1835. See Rogers W. Young, The Chesapeake and Ohio Canal and the Antebellum Commerce of Old Georgetown, MS. (Jan. 1940) Division of History Files, National Park Service, p. 203.

flour on river vessels with virtually no land transportation costs. In contrast, the Rock Creek mills, particularly Peirce's and Blagden's, were for those days far out in the country over rough wagon roads. Apparently enough local custom grist business existed to keep the upper Rock Creek mills going and permitted the financing of some improvements, but it is doubtful if any large fortunes were made on milling alone at the Rock Creek mills. Flour continued an important local industry after the Civil War (indeed Washington has flour mills today).³⁰ But the Rock Creek millers' share of the local flour business soon began to decline both relatively and absolutely until in 1897 it reached absolute zero.³¹

What happened to the Rock Creek millers after 1870 can be attributed to technological displacement of old fashioned production methods by new, more efficient processes. It was ironic, for after temporary setbacks due to the Civil War, milling recovered surprisingly quickly in the Washington vicinity. The Richmond mills once again began to hum and to export large quantities of flour and Washington merchant and grist mills did well. But the recovery was only temporary.

30. In 1880 there were more than 70,000 acres of farm land in wheat and corn in Montgomery county. Among the large mills operating in District in the 1880's were W. H. Tenney and Sons mills in Georgetown with a total of 8 run of stones and 4 sets of rollers and S. C. McDowell's Grain Elevator and Steam Mill (corner of N. Capitol St. and Massachusetts Ave.) which was six stories high and capable of shelling 500 bushels of corn per hour. In 1884-1885, Washington and Georgetown Flour Inspectors reported inspecting more than 200,000 barrels of flour. Scharf, 1, p. 655; Elmer E. Barton, Historical and Commercial Sketches of Washington and Environs (Washington, 1899), pp. 94, 109; and Commissioners of the District of Columbia, Annual Report (1885), House Executive Docs. (Washington, 1886), Ser. 2383, pp. 44, 182.

31. The year of the demise of Peirce Mill.

About 1870 the so-called "new process" or "Hungarian method" of grinding wheat was introduced in the hard spring wheat belt of the northern Midwest. In the old process up to 1850 the need to speed up production to meet growing demands had caused millers to adopt fast low grinding. Wheat was passed through the mill stones once and the percentage of flour produced over bran depended upon the dress of the runner stone, the face of the grinding surface, the balance of the runner stone, and its speed. The idea was to make as much flour as possible from a single grinding and to avoid as much as possible the making of half-ground grain or middlings. As a result much of the bran was so pulverized that it could not be separated from the flour. This gave the flour a darker color, made it collect more moisture, and rendered it difficult to keep in damp climates.

The middlings purifier, coming into use in the United States about 1870, made it possible to produce a much purer flour. Now the millstones could be raised for the first grinding to yield some flour, some bran and some middlings. The middlings could then be put through the purifier which separated the flour, bran, dust, and fluffy particles and then be reground to produce "super fine" or "patent" flour. With the new process it was possible to produce the whitest flour from spring wheat. By 1880 steel rollers would begin to replace mill stones in the production of flour. The result was the mass production of cheap white flour and the eventual destruction of the American grist mill.³²

32. Dondlinger, pp. 267-70

White flour flooded the country in the 1880's and signalled the doom of the old-fashioned millers. A successful roller mill was expensive to build and operate. The larger it was the more efficient and profitable it could be. As in most other phases of American industrial life, the trend was toward larger units of production and consolidation. In spite of attempts by many grist millers to stem the tide against them by updating their methods and machinery, replacing wooden wheels with metal turbines or steam engines, for example, the battle was over before it began. According to one source, the number of grist mills in the United States declined by 26 per cent in the space of two years, 1884-1886. In Virginia the number of mills dropped from 1,385 in 1880 to 509 in 1886.³³

By 1900 a water powered grist mill was in most parts of the country a rare sight indeed. Flour production in the country soared, but no longer did the custom miller have any significant part in it. Mills were abandoned; fell into picturesque ruin eventually to disappear from sight, remaining vivid only to a few old-timers who remembered. Progress in the flour milling industry made it possible for the millions to eat more and more cheaply, but progress extracted a price. The passing of the grist mill subtracted something aesthetically positive from the American scene. As one who saw the change recalled:

33. Albert Shaw, "Flour-Making in the United States," The Chautauquan 8 (Oct. 1887), 16-20. The American Miller, begun in 1873, was a journal of small millers. It records the attempts of the "old process" to survive. See also W. N. Rowe, "The Grist and the Merchant Mill," The American Miller, 17(1889), 817-18.

Poets have dreamed on the margin of the mill pond
and sweet memories have clustered about this scene
of quiet industry; the song of the mill wheel . . .
and the dusty miller leaning over his³⁴ half door was
ever a restful and pleasing feature.

But the scene at the new merchant's mill was hardly pleasing.

His mill is not a placid, murmuring, poetic and artistic
ivy grown structure, lurking modestly on some quiet
stream, half-hidden by trees, but a huge and, alas, too
often a hideous looking factory, puffing and pounding
and trembling away day and night in an effort to turn
out all the flour it can, driven by mighty engines or
powerful turbines, or both.³⁵

34. W. C. Edgar, "The Miller and his Mill," The Chautauquan,
16(1892-93), 169.

35. Ibid., p. 171.

THE ROCK CREEK MILLS, 1790-1897

At various times during the period from the inception of the District of Columbia until the creation of Rock Creek Park and the National Zoological Park, flour and grist mills, bone and plaster mills, a woolen mill, saw mills and several lime kilns were in operation along the creek. In addition general agriculture and truck farming were practiced extensively and, improbable as it may seem today, there was good fishing and swimming.¹ And yet, except near the river and the turning basin of the Chesapeake and Ohio Canal, Rock Creek Valley was then, if anything, more secluded and park-like than it is today. On the hill tops flanking the valley were fine country seats, Kalorama, Holt House, the Peirce-Klingler Mansion, and the Thomas Blagden Mansion. Deep in the valley one could find a mill nestled against the very banks of the creek-cool stone shaded by tall sycamores and poplars, water foaming beneath the mill dam and flashing from the blades of the creaking, slow-turning wheel, small boys fishing on the bank nearby. Occasionally a wagon would rumble along the rough mill road, but never was there the rush of an auto or the odor of an exhaust.

1. Laws were passed for the preservation of Rock Creek navigation in 1792 (fish weirs were not permitted within two miles of the Potomac) and in 1816 (owners of waterfront lots on the Creek were not to fill their land in such a way as to permit soil or fill to fall into the Creek and impede navigation). See William A. Gordon, "Georgetown" in Dudley Hassan, Scrapbook of Old Newspaper Clippings Relating to the History of Washington City and Vicinity, etc. In Library files of the Columbia Historical Society.

Back of this facade of tranquillity and ease was the drive of ambition and long hours of hard, heavy labor. Each mill was the scene of a struggle to earn a livelihood. We cannot know the precise details of the day-to-day life of the millers of Rock Creek. We know only enough to reconstruct a general story of each mill.

Lyons or Federal Mills

Local historians maintain that this merchant mill, perhaps the most important on the Creek, was constructed by Pigman and Crow about 1780.² The mill tract of approximately 65 acres was a part of four original Maryland colonial land grants: Pretty Prospect, Rock of Dunbarton, Widow's Mite, and Beall's Lot. Little is known of its early history except that Joseph E. Rowles operated it from 1792 until his death in 1811 under the name of Federal Mills. Subsequently four local citizens, Washington Bowie, John Kurtz, Elisha Riggs, and John Lyons purchased it. Kurtz and Lyons continued in the business until at least 1826, and then Lyons alone.³ Lyons was born in Delaware about 1781, and perhaps was experienced in the famous Brandywine Mills.⁴ In 1820

2. "Our Water Power," Washington National Intelligencer (Sept. 21, 1869) and Alan C. Clark, "The Old Mills," Records of the Columbia Historical Society, 31-32 (1930), 99.

3. Ibid., p. 100; Washington Evening Star (June 27, 1913); Washington Daily National Intelligencer (August 5, 1867). Clark maintains that the actual mill tract was about 25 acres. No doubt the additional acreage was devoted to agriculture.

4. This seems a reasonable speculation. The Brandywine Mills constituted perhaps the Nation's major milling center about 1800.

his household totalled 19 persons including eight slaves. In that year the five run of stones in his mill had ground 43,000 bushels of wheat and 10 barrels of flour. In 1850 John Lyons was living in the same place. The 69-year-old miller was maintaining a household of 15 persons including seven Negroes (who were probably slaves) but had apparently passed the business on to Evan Lyons. Three Negroes were listed as millers and Evan was employing five additional hands whom he paid a total of \$224 in wages for the preceding year. Production at the mill in the preceding year had been 65,000 bushels of wheat worth \$70,000 and 14,000 barrels of flour worth \$7,900. In addition Evan Lyons had improved 22 acres of land on his 56 acre tract which he valued at \$2,000. On it he had raised 30 bushels of wheat, 150 bushels of oats, 15 bushels of potatoes, \$10 in orchard products, \$20 worth of garden produce and 15 tons of hay. His two milk cows had yielded 104 pounds of butter.⁵

A decade later Evan Lyons, 54, an experienced miller (and probably a son of John Lyons) with an investment of \$20,000 and the help of four hands had ground in 1859-1860, 80,000 bushels of wheat, 18,000 barrels of flour and 400 tons of plaster. He had improved the farm for he now had 35 acres under cultivation, owned \$100 worth of farm machinery, 6 horses, 4 cows, and 3 swine. He had

5. Schedule of Manufactures, 4th U. S. Census (1820) MS., and Schedules of Heads of Families, Products of Industry, and Products of Agriculture, Washington County, 7th U.S. Census, Records Group 29, National Archives (Microfilm). Unless otherwise noted, Census records cited below are for the District of Columbia and are on microfilm in Record Group 29, National Archives.

ceased growing wheat, but had produced 200 bushels of oats,
20 pounds of potatoes, 250 pounds of butter, and 6 tons of hay.⁶

Lyons Mill survived the upheaval of the Civil War. The most serious setback of the 1860's was perhaps the great storm of October 1869, which transformed Rock Creek into a raging flood that carried away the Lyons' dam and bridge and left 10 feet of water standing in the mill.⁷ But the mill was quickly repaired, for Lyons reported to the census taker in 1870 that with the help of five hands his three run of stone had ground 90,000 bushels of wheat, made 20,000 barrels of flour, 45,000 bushels of offal (animal feed) and 499 tons of plaster.⁸ The property was now worth \$60,000 Lyons claimed.

Three years later he died. Then Evan Hughes operated the mill for a brief period, but by 1875, he, too, had died and the burrs of Lyons Mill had ground to a final halt. The mill site was abandoned and forgotten. A truck farmer cultivated vegetables nearby and a poor Negro family lived in Lyon's decaying home. Nineteen-hundred passed, and 1910, and then in 1913 the mill was briefly in the newspapers when on September 26 it collapsed with a roar

6. Schedule of Manufactures and Schedule of Agriculture. 8th U. S. Census (1860).

7. "The Great Storm," Washington Daily National Intelligencer (Oct. 4, 1869).

8. Schedule of Products of Industry, West Part of Washington, 9th U. S. Census (1870).

heard over the bustle at Sheridan Circle. Subsequently, Park road and trail construction eliminated the remains of the mill.⁹

In its heyday in the nineteenth century the Lyons Mill complex was imposing. The mill building was a sturdy structure of brick, stone and wood. The foundation was of native bluestone and above it were two brick stories. On the west side alone the building had a total of 19 openings for doors and windows. Heavy oaken beams and stanchions provided support for the walls. Window casings were wooden, the roof shingled. In 1873 the capacity of the mill's three run of stone was estimated at 140 barrels of flour per day, although it is doubtful if they were often taxed to capacity. It is not known what type of water powered mill wheel turned the burrs at Lyons Mill, but the mill race was the longest of any on Rock Creek, running for almost 1/2 mile up stream to the dam.¹⁰

Rounding out the structures at the mill seat were a barn, smoke house, ice house, carriage house, stable, and two stone houses. The smaller house near the mill was undoubtedly the miller's house. The other on the terrace of the hill above the mill overlooking Oak Hill Cemetery, Washington, the Potomac and Rock Creek was the Lyons home. In 1873 it was a first class residence of 18 rooms. The grounds around it were laid out with choice fruits, flowers, and evergreens.¹¹

9. Washington Evening Star (June 27, 1913).

10. Ibid. and Flat of Lyons Mill Seat near Georgetown, D. C. by N. Du Bois (August 1878), Records Group 42, National Archives.

11. Star (June 27, 1913).

Little historical significance beyond matters of local interest attaches to Lyons or Federal Mills. Its dam perhaps approximates the head of navigation on Rock Creek before silt due to erosion and the construction of the Chesapeake and Ohio Canal turning basin near the mouth of the Creek ruined it. The banks of the Creek near the mill were traditional fishing spots, especially during the herring runs, and the mill itself was the site of nineteenth-century barn dances.¹² Local lore asserts that Robert

Fulton tested a model of his Hudson River steamboat the Clermont at Lyons Mill dam when he was a guest of his good friend Joel Barlow at the latter's Kalorama Estate adjoining the mill seat.¹³

Unfortunately, the story is difficult to substantiate. Fulton's Clermont made its maiden voyage August 17-22, 1807. The only recorded test of a Fulton invention on the creek was the demonstration of previously tested submarine torpedoes before Senators and Representatives in February 1809.¹⁴

12. Christian Hines, Early Recollections of Washington City (Washington, 1866), p. 33.

13. See George Simmons, "Roadside Sketches," Washington Star (Summer 1891?) Clipping Files, Library, Columbia Historical Society.

14. James Woodress, A Yankee's Odyssey: The Life of Joel Barlow (Philadelphia, 1958) makes no mention of the test. Harold D. Everlein and Courtland V. D. Hubbard, Historic Houses of George-Town and Washington (Richmond, 1958), 442, and Wilhelmus B. Bryan, "Some Myths in the History of Washington," Records of the Columbia Historical Society, 31-32 (1930), 43, are inclined to doubt the story's authenticity. Both note however that Fulton did test the submarine-torpedo (mine) device and that he had already demonstrated similar devices to French and British officials.

Columbian or John Quincy Adams Mill

On the east bank of Rock Creek within the bounds of the present Zoological Park is the site of the Columbian Mills, built by Benjamin Stoddert before 1800.¹⁵ Had it survived to the present time the mill would be of historical importance not because of its antiquity but because of its intimate association with John Quincy Adams, the sixth President of the United States.

In 1800 Stoddert conveyed the mill to Benjamin Mackall who in 1803 sold to Ralph Waldo Shoemaker. Between 1803 and 1809 Jonathan Shoemaker, later the miller at Shadwell Mill near Jefferson's Monticello, operated it.¹⁶ In 1809 Roger Johnson of Frederick County, Maryland, purchased the property and then conveyed it to his son George.¹⁷

Over the next decade, the younger Johnson poured money into improvements, claiming by 1820 to have invested a total of \$60,000. In that year he had five pairs of stones in operation and had ground 60,000 bushels of wheat, 20,000 bushels of corn, and 40,000 pounds of plaster of paris.¹⁸ But the business did not prosper. He was

15. Clark, p. 100.

16. Ibid. According to a descendant of Jonathan Shoemaker, Dolley Madison often rode out from Washington to visit Mrs. Shoemaker at Columbian Mills. Edward Shoemaker, Some Account of the Life and Family of George Shoemaker (Washington, [1882]), p. 2.

17. John Quincy Adams, Diary (Jan. 25-July 26, 1823) Entry for July 14 in The Adams Family Papers, Microfilm, Library of Congress.

18. Return of Manufacturers, 1st Ward of Washington, 4th U.S. Census (1820).

forced to borrow \$20,000 payable with interest in five years from the Bank of Columbia. By the summer of 1823, the bank was threatening to foreclose on the property and in desperation Johnson went to his cousin Louisa's husband, Secretary of State John Quincy Adams. Painting a rosy picture of the future of the mills, and a grim picture of his wife and three small children out at the mill, he pleaded for Adams' help. If Adams would invest \$20,000 to pay the mortgage and an additional \$10,000-12,000 to get the mill in shape and purchase wheat for the next season's grinding, and keep Johnson on as manager with the option to buy back half ownership later for \$30,000, Adams could become a prosperous millowner.

Adams was no businessman. He knew nothing about milling and knew that he could never manage the operation, but mill ownership was attractive to him, perhaps "a gracious offer of Providence." He was looking forward to retirement at the end of the Monroe Administration and time to engage in literary pursuits. The mill might be just the thing to support him comfortably in his declining years and it would provide useful employment for his son, John Adams 2d. He considered the matter only a week and then agreed to buy the mill if George Johnson would undertake not half but all future capital investments. Johnson consented and Adams sold \$9,000 in U. S. 6%¹⁹ bonds and mortgaged his house at 1335 F Street to raise the rest.

19. Samuel F. Bemis, John Quincy Adams and the Union (New York 1956), pp. 197-98 and Adams, Diary, Entry for July 14, 1823. Adams Papers.

Adams' first year as a millowner was a nightmare. Many repairs to the mill were necessary. An assistant miller did not show up for work. Business was bad. Production which should have been 100 barrels of flour a day was more nearly 100 a week. Johnson's book-keeping system was an unintelligible jumble. The next spring 700 barrels of flour and a quantity of green corn heating up in the warehouse lay heavy on the hands of the company with no prospects for sale. In the summer of 1824, floods along the creek washed out roads and damaged the mill.²⁰

By the end of his unhappy Presidency in 1829, Adams was thoroughly disillusioned with the pleasures of mill ownership. The situation seemed to be getting worse by the year. When local crops were good, general market conditions were bad; when market conditions were good, the local crop failed. After 1829 the Baltimore and Ohio Railroad began to bring in large quantities of western grain to Baltimore, forcing a number of Washington mills to the wall and Georgetown merchants into decline. George Johnson proved incompetent and was eased out of the business. Then John Adams 2d took over management of the mill and succeeded in making it solvent, although many pressing debts remained.²¹ Samuel Flagg Bemis describes the former President's feelings in the winter of 1829-1830 when "the

20. Bemis, p. 198.

21. Ibid, pp. 198-99.

wretched mills preyed 'like gangrene' on his spirits." Adams,

loaded with bereavement, his face swollen with a painful neuralgia that kept him from sleeping nights . . . would wander out to Rock Creek by day, watch the wheels turn round and round, grinding away the savings of a lifetime and the inheritance of his children, shaking the structure under his feet with the unsteady vibrations of their unprofitable revolutions. As he watched he saw himself settling in to the position of a typical American ex-President, barely ahead of the sheriff, like Thomas Jefferson and James Monroe.²²

The sheriff never caught up with John Quincy Adams, but he came close. In 1834 John Adams 2d died. After his death, the elder Adams managed by scrimping to pay off the \$30,000 debt on the mills plus other debts that John had incurred in their operation. But difficulties continued. William Greenleaf, brought from Quincy, Massachusetts, to run the mills, was a failure and between 1834 and 1836, the Columbian Mills were often closed down. Adams considered selling, but flour mills were a drug on the market and it was not possible to sell without a total loss of his investment. Between 1836 and 1839 he was reduced to borrowing sums from his former valet and Potomac River swimming companion, Antoine Guista. But after the darkness came the dawn. Nathaniel Fry, Louisa Adams' brother-in-law, eventually took over Columbian Mills and by good management succeeded in producing for Adams a small income during his last year.²³

22. Ibid., p. 199.

23. Ibid., p. 200.

After Adams' death the mill continued in operation as a part of his estate.²⁴ In 1850, Maryland-born, 48-year old Horatio White was the principal miller, living there with his wife Hannah, and sons Alcibiades, 6; George, 4; and Charles H., 2. In the next house visited by the census taker lived another miller, Charles Mansfield, who was probably White's assistant. Ten years later both millers were at the same location. But in 1867 the story of Adams Mill came to an end. In that year it was stricken from the tax books. By the turn of the century every trace of the mill and associated structures had disappeared.²⁵

The mill seat covered about 32 acres. There were at least two mill structures on the site, a bone mill and wheat mill. Nothing is known about the bone mill, but the wheat mill was described as a four story brick structure, 50 by 54 feet. The dam was several hundred yards upstream from the wheat mill. However no plats have been found to verify this information and no solid data is available on the physical appearance of the mill scene.²⁶ Describing a visit to Adams Mill in

24. Adams left the mill to his son and executor, Charles Francis Adams. See Will of John Quincy Adams in Adams Family Papers.

25. Schedule 1, D.C., 7th U.S. Census (1850) and 8th U.S. Census (1860), and Clark, p. 101.

26. Deeds to John Quincy Adams from James Dunlap (July 25, 1823) and Roger Johnson (July 28, 1823), in Adams Family Papers; Clark, p. 100-01. Adams had a fire insurance policy on the mill with the Franklin Insurance Company of Washington. No policy number is given in the Adams Papers, but if the records of the company have survived they might provide information on the physical appearance of the mill.

1848 , a correspondent of National Intelligencer waxed romantic:

Our next place after we left Kalorama was at an old mill, located in the center of a secluded glen. With the humming music of its wheels, with the polite attention of its flour MILLER and with the rustic beauty of his cottage and children, we were all pleased, but with the natural loveliness of the place we were delighted. A greater variety of luxuriant foliage I never before witnessed in so limited a nook in the country. . . . We were greatly hemmed in from the great world, and in addition to the mill and cottage, we had a full view of the stream which was spanned by a rustic footbridge, upon which a number of children were standing and throwing pebbles into the water, while a few paces beyond a man was pulling to the shore a small boat laden with wood. On either hand a number of proud looking oaks towered against the sky, and by the water's edge in the distance stood a stupendous silver willow, literally white with age; and to complete the picture, we had in one place a mysterious brick ruin, and the background a variety of mossy rocks, upon which in superb attitude, stood our beautiful greyhound, watching a little army of minnows, sporting in a neighboring pool. . . . And with what great name does my head imagine this beautiful place is associated. None other than that of the late John Quincy Adams. . . .²⁷

Peirce Mill and Peirce Plantation

In 1794, the same year that Morse published his glowing account of the future of the Federal City, 38-year-old Isaac Peirce (spelled also Pearce) acquired land along Rock Creek about three miles north of Georgetown, and about the same distance from the mudholes, scattered houses, and rising public edifices out of which was to rise the Federal City.²⁸ With the land he acquired a two-story wooden grist mill

27. "A Day in Rock Creek," Washington Daily National Intelligencer (Oct. 20, 1848).

28. The mill tract was a part of three Maryland colonial land patents: Re-Survey of New Seat (George Read, 1747), The Gift (Samuel Beall, 1762), and Mill Seat (James White, 1772). See Ruth E. Butler, H.A.B.S. Document No. D.C.-22, 1936. Unpublished MS., Library of Congress, quoting Liber 132, folio 156, Land Parcel 75, Chief Surveyor's Office, District of Columbia.

powered by an undershot wheel and two runner wheels. William Deakins, a local Revolutionary patriot, was the previous owner of the site, but beyond this little is known about the mill Peirce purchased.²⁹

Little more is known about Peirce himself. He was of Pennsylvania Quaker stock, apparently one of many Quakers who migrated from Pennsylvania after the war. The date of Peirce's arrival in Washington is open to question. Descendants place the date around 1785, but also say that he worked for Abner Cloud near Georgetown before marrying Cloud's daughter Elizabeth (Betsy). If so, either Cloud established his mill near Georgetown before 1779 (which is improbable, for his deed is dated 1788) or the mill was in Pennsylvania, because the first Peirce child was born in 1780. In any case, Peirce with his wife and five children and an unidentified "white male over 16 years of age" are recorded in the 1790 census of heads of families in Montgomery County, Maryland.³⁰

For all its long history, comparatively little is known about the operation of Peirce mill. It was one of many Peirce interests and was operated for the family by various millers. Unlike Adams Mill it has no associations with historical personages who have left

29. Ibid., Lewis

30. See Ruth E. Butler, Memorandum, Pierce Mill, N.C.R., N.P.S. Decimal File 1460/Rock Creek Park 90-40, pp. 4-5; Heads of Families--Maryland [at the First Census of the United States]. Montgomery County (Washington, 1907), p. 85; and Steven Lewis, "Stabilization Study, Little Falls Skirting Canal, Maryland and District of Columbia," MS, Division of History Studies, NPS., August 1966. p. 2.

voluminous papers. Unlike Lyons Mills, and the merchant mills of Georgetown, it was comparatively far out in the country and failed to attract the attention of newspaper editors boosting local manufacturing possibilities or reporting flood damage from Rock Creek freshets. Unlike Lyons, Adams, and Blagden's Mills, its miller was never identified in the census records before 1880. Perhaps most unfortunate of all, it has been impossible to locate so far, transcriptions of the interview with Francis D. Shoemaker or other pertinent historical data upon which the restoration of the mill in the 1930's must have been based. Apparently the restoration files have been misplaced or destroyed. Thus the story of the mill as it is now known is sketchy.

31

Before 1790 Isaac Peirce migrated to Montgomery County, Maryland. In 1794 he acquired a wooden frame, two story grist mill near the present site of Peirce Mill. Nothing is known of this mill or its production. In 1820 or 1829 he built the present Peirce Mill, of native

31. A letter from Verne E. Chatelain to Frank [Francis D.] Shoemaker (August 15, 1934) requested an interview for Park Service Historical Assistant Ruth E. Butler and apparently a historical report on Peirce Mill was submitted to National Capital Parks Superintendent C. Marshall Finnan on November 13, 1934. See pencil notation on Finnan's Memo for the Director (November 3, 1934). Both items may be examined in the Central Classified File, National Capital Parks, National Park Service, 1933-1949, Records Group 79, National Archives. The extant Public Works Administration files at the National Archives contain little information on the history of the mill. Neither do the wills and administration of estate files of Isaac and Abner C. Peirce and Peirce Shoemaker. For items stored at the mill in 1851 see Appendix.

bluestone granite, probably quarried at Broad Branch.³² This mill was powered by an undershot wheel and two runner wheels until 1840 when these were replaced by a more efficient overshot wheel. At some time in the early nineteenth century he built a saw mill just across the road south of the grist mill. The saw mill was water powered and its race passed near the front door of the grist mill. The saw mill was not a success, was abandoned, and fell into decay.³³ Presumably this was the ruin observed by the National Intelligencer correspondent in October 1848.³⁴ And at some date during Shoemaker's ownership (1851-1891) he constructed a second saw mill, perhaps attached to the flour mill, which does not appear on the maps or plats.

Various improvements were made to the wheat mill after 1840. In 1878, the old wooden water wheel was replaced by 40-inch wide, metal Leffel (Loeffel) turbine wheel, developing 15 horsepower over a nine foot fall. The wheel turned three run of stone.³⁵

32. See Butler, Memo--Pierce Mill, pp. 8-9. Research for this study sheds no new light on the date of construction of the mill. From the standpoint of business cycles, however, 1829 seems a more likely year. The earliest date would have come soon after the Panic of 1819, not a good time for business expansion. The latter date would have coincided with hopes for prosperity and new business opportunities as a result of the building of the C. and O. Canal. In 1829 it was not yet clear that the experimental B. and O. Railroad would cut severely into local flour-milling or that water power from the canal constructed through Georgetown would make the importance of Rock Creek water power negligible.

33. Ibid.

34, National Intelligencer (Oct. 20, 1848).

35. Butler, Memo--Pierce Mill, p. 9; Special Schedules of Manufactures, Flour and Grist Mills, Cheese, Butter, and Condensed Milk Factories (June 1, 1879-May 31, 1880), 10th U.S. Census (1880). The American Miller, 1(1873), 11, contains a detailed description of James Leffel's Improved Double Turbine Waterwheel and claims that some 6,000 were already in use under heads (falls) of water ranging from 1 1/2 to 240 feet.

Francis D. Shoemaker remembered the names of the millers at Peirce Plantation during his lifetime as "Donald, Tennyson, Gaskins, Fleckker, Donald again, Gaskins again, and the White brothers." With the presently available information, it is not possible to know exactly when each operated the mill, although all can be tentatively identified.³⁶ "Donale" or "Donald" may have been John Darnell (also spelled Darnal). Darnell, born in Maryland about 1827, according to the census records of 1860 had entered the milling business September 1, 1859, with an investment of \$500 and since then had ground 2,500 bushels of corn worth \$3,000. Assisting him and recorded as a member of his household, was a 29-year-old Virginia-born miller, Whiting (also spelled Whitney) Tennyson. The order of the census taker's visit to the houses in the vicinity (Peirce, Shoemaker, Joshua Peirce, and then Darnell) suggests that Darnell and Tennyson were operating Peirce Mill.³⁷ Ten years later the order of census was different, but the next house visited after Joshua P. Klinge (successor to Joshua Peirce at the Peirce-Klinge Mansion) was Tennyson's. Tennyson was now in business for himself. Assisted by William A. Spurrier, he was operating a merchant and grist mill on Rock Creek (water-powered with 3 run of stone). This description fits Peirce Mill but does not positively identify it. During the year before the census, he had ground for the market 200 bushels of wheat into 40 barrels of flour worth \$240, 3300 bushels of corn into 4075 bushels of offal, and 1000 bushels of rye into 150 barrels of flour. Custom work amounted to 632 bushels of offal,

36. Butler, H.A.B.S., p. 5.

37. Schedule 1, 8th U. S. Census (1860).

3000 of corn and rye, and 3375 of meal and flour.³⁸ "Gaskins" would have been either Charles or William, both of whom were local millers. Available sources do not reveal where they were in business before 1875, but in that year "the Messrs Gaskins" bought the Lock Mill on the C. & O. Canal above Georgetown.³⁹ In 1880 William was still listed as the operator of that mill but Charles had moved to Blagden's Mill.⁴⁰ "Gaskins" two tours at Peirce Mill may have been prior to 1875.

"Fleckker" was Charles W. Floecker (also spelled Flocker), a German immigrant who was a miller along Rock Creek around the middle of the nineteenth century. Floecker, born in Hanover about 1820, was the operator of Blagden's Mill in 1860. In 1870 he was operating a mill on Rock Creek which was either Peirce Mill or Blagden's Mill. He does not appear in the 1880 census for the area.⁴¹ The White Brothers, Alcibiades and Charles H., came to Peirce Mill in the mid-seventies. The installation of the Leffel Turbine wheel probably marks their arrival. The sons of Horatio (Horace) White, former miller at John Quincy Adams heirs' Columbian Mills, they had grown up along Rock Creek. Alcibiades was born about 1845 and Charles around 1850. They were the last commercial millers at Peirce Mill.

38. Schedule 1 and Schedule of Manufacturers, 9th U.S. Census (1870).

39. The American Miller, 3 (1875), 113.

40. Special Schedules of Manufacturers, Flour and Grist Mills, Cheese, Butter, and Condensed Milk Factories (June 1, 1879-May 31, 1880), 10th U.S. Census (1880).

41. Schedule 1 of 8th U.S. Census (1860) and 9th U.S. Census (1870). Floecker's place of birth is given as "Hanover." It is assumed that this is the German principality rather than a U.S. city, for census lists invariably listed states of birth rather than localities.

Louis P. Shoemaker recalled that the 1870's had been golden days at Peirce Mill when business boomed and paid the owner between \$1,200 and \$1500 in annual rent.⁴² Statistics for 1880 suggest a drastic change had occurred. The White Brothers in that year were operating primarily a feed mill. With an investment of \$600 and three run of stone, the Whites and one hand who was paid \$1.00 for a 12 hour day, had ground only 50 bushels of wheat and 13,000 bushels of other grain. From June 1879 to May 1880 they had made 10 barrels of wheat flour. Cornmeal and feed had been the major products. The mill had produced 480,000 pounds of the former and 127,900 of the latter. Total value of all products during the year had been only \$8,250. Mill capacity was a low 50 bushels a day.⁴³

The White Brothers kept the mill in operation into the 90's but it seems doubtful that there was much profit. The administration of Peirce Shoemaker's estate shows that in 1890 they purchased a corn crusher for \$25.00 and paid a freight bill of \$13.25 for a new casting for the mill. The Whites at that time were paying only \$20 per month rent on the mill.⁴⁴ In 1897, the mill ground its last. As

42. Schedules of Inhabitants and Manufacturers, 7th, 8th, and 9th U.S. Census, (1850, 1860, and 1870); and Louis P. Shoemaker, "Historic Rock Creek," Records of the Columbia Historical Society, 12 (1909), 40-41.

43. Special Schedule of Manufactures, 10th Census (1880).

44. Administration File, Estate of Peirce Shoemaker, Register of Wills, District of Columbia.

Alcibiades White ground some rye for a neighbor, the main mill shaft broke and apparently it was not economical to repair it. The elder White remained near the mill until 1917 but, except for the period after its restoration, when the mill produced stone ground flour for the curious and the nostalgic, the mill stones turned no more.⁴⁵

The Peirce Plantation

Whether Isaac Peirce operated the original mill himself (he was by occupation a millwright and farmer), whether he hired a miller, or even if the mill was in operation is an object for speculation. But from some source, perhaps mill profits, perhaps fees for mill construction, perhaps funds brought from Pennsylvania, he managed to acquire enough money to purchase 1200-2000 acres of land along Rock Creek, stretching from the present Military Road to the Zoo, before 1800.⁴⁶ At the time of the Second U.S. Census, he was maintaining a household of 13 persons, several of whom were probably farm laborers. Unlike his kinsman, Abner Cloud, at this time he owned no slaves.⁴⁷

For the next twenty years little information is available on the progress of the Peirce enterprises. In 1801 he built a distillery,

45. Butler, Memo--Peirce Mill, p. 10.

46. Ibid., p. 7.

47. Schedule of Heads of Families, 2d U.S. Census (1800).

later used as a barn. In 1814 he (probably with his son Joshua) was in the nursery business advertizing 20,000 apple tree cuttings available at his nursery three miles north of Georgetown.⁴⁸

By 1820, Isaac Peirce had acquired, as a badge of prosperity, 11 slaves. The master, his wife and nine children and one other person, possibly an overseer, rounded out his household of 23 persons.⁴⁹ In 1823 he made his eldest son, Joshua, a gift of land on a hill south of the mill and family home. Here Joshua, a horticulturist of considerable local note, brought his wife of three years, Susan Coates Peirce, and built a fine stone mansion with landscaped grounds. This of course was Linnean Hill or the Peirce-Klinge Mansion.⁵⁰

By 1830, the aging Peirce, even though his sons Joshua and Abner C. had left home to establish separate seats, still presided over a household of 27 persons including 14 slaves and one free Negro laborer. And in 1840, he was still operating the plantation he had built with long years of hard work. Then, in the winter of 1841, he died.⁵¹ In addition to the large gift of land to Joshua Peirce he was able to pass on very generous legacies to his other children. The will was read on December 29, 1841, in the presence of three

48. Wilhelmus B. Bryan, A History of the National Capital, 1 (New York, 1914) 598n.

49. Schedule of Heads of Families, 4th U.S. Census (1820).

50. The name "Linnean Hill" derives from Carl Von Linne (Linnaeus), Swedish Botanist (1707-1778).

51. Schedules of Heads of Families, 5th U.S. Census (1830) and 6th U.S. Census (1840).

of his children (Joshua, Abner C., and Elizabeth) and a grand-nephew, Peirce Shoemaker. To Joshua, who had already received a suitable gift, he left only \$50. To his daughter Ann (Simington) he bequeathed \$500. Daughter Hannah was to receive \$3,000, a choice of any one of his servants, one bed, one bedstead, and matching furniture. Daughter Abigail received \$400, grandsons Peirce and Abner Shoemaker \$250 each, and granddaughter Elizabeth Ould \$300. Admonishing his children to be kind to each other, and to live at home until they married, he left all his property (including Peirce Mill) and estate, "real, personal and mixed" to his son, Abner C. Peirce.⁵²

Abner, 56 years old at the time of his inheritance, had but a decade left to enjoy his role as master of the Peirce Plantation. The plantation continued to do well and it was his good fortune, like his father before him, to preside over one of the most pastoral and scenic spots in the District of Columbia. From the early nineteenth century, the Peirce Mill vicinity had been a favored resort of picnickers. Less than an hour's ride from the Capitol, it offered escape for the townsman. There was good fishing, bird-watching, walking, painting, and delightful air.⁵³ In 1848 a correspondent in the National Intelligencer described at some length a day's

52. Will of Isaac Peirce, Register of Wills, District of Columbia.

53. S. Somervell Mackall, Early Days of Washington (Washington, 1899). The Washington Times (December 13, 1903) recalls that the mill was the site of barn dances (on the second floor) and its environs were a Sunday School picnic resort, a parade ground for local volunteer fire companies and militia, and a mecca for family artists.

excursion along Rock Creek including a visit to Peirce Plantation. Armed with sketch-books, the writer and a friend, accompanied by a sleek greyhound, visited Kalorama and Adams Mill, and then set out for Peirce's. Moving north along one of the "roads which cross the channel of Rock Creek, and frequently run for a long distance along its winding vale," he remarked that on many of the Rock Creek roads "you might walk for miles without meeting a human being, but then you would be sure to frighten many a rabbit, and destroy the gossamery hammocks of unnumbered spiders." After meeting a boy who said he was on his way to Mr. Peirce's, they came to a cider mill, presumably on Peirce Mill Road and perhaps on Peirce's land. Here they found "an old negro with the assistance of a mule" grinding apples and another man "pressing the sweet juice in a mammoth tub."⁵⁴

A lot of boys who were out on a chestnut gathering excursion, had discovered the mill, and having initiated themselves into the good graces of the darkies, were evidently enjoying a portion of Mr. Horace Greeley's celebrated 'good time' [that is, cider].⁵⁵

About noon they reached "that spot upon Rock Creek known as Pierce's Plantation."

Here we found the ruins of an old sawmill and while transferring a portrait of it to our sketch-book, with its half-decayed dam, and two or three hoary sycamores and elms, we discovered a boy . . . fishing. We bowed to him as to a brother angler, and looking into his basket we found snugly lying there no less than half a dozen handsome fall fish weighing from six ounces to a pound each. These we . . . purchased, and then inquired of the boy if he knew of a house in the vicinity where we could likely have the fish cooked.⁵⁶

54. National Intelligencer (Oct. 20, 1848).

55. Ibid.

56. Ibid.

The boy told them there was such a house and went ahead to warn the "inmates of our approach." What follows is quoted at some length and in detail because it may well be a description of the Peirce family home, which was replaced in 1876 (Appendix I inventories the furnishings of the house in 1851):

We sent him to the dwelling for the purpose of warning the inmates of our approach. On our arrival there we were warmly welcomed, and in due time we had the satisfaction of enjoying as finely cooked fish as ever tickled the palate of Izaak Walton or Sir Humphrey Davy. Not only were we waited upon with marked politeness, but were treated with an abundance of marked currant wine, and for all this truly southern hospitality we could make no return, except in the way of gratitude.

But pleasant as our reception and repast at this Rock Creek cottage, my own mind was more deeply impressed with the exquisitely charming appearance of the cottage itself and surrounding buildings. It struck me as one of the most comfortable and poetical nooks that I ever beheld. It seemed to have everything about it calculated to win the heart of a lover of nature and rural life. Though situated on the side of a hill and embowered in trees, it commands a pleasing landscape; and as it was built upwards of one hundred years ago, it is interesting for its antiquity. Surmounted as it is with a pointed roof, green with moss of years, and flanked by a vine-covered porch, the vegetation which clusters around it is so abundant that you hardly discover its real proportions. And all the out buildings are within keeping of the cottage itself. It is, upon the whole, one of the most interesting nooks to be found anywhere within an hour's ride of the Capitol; and I can certainly understand what a certain wealthy gentleman felt when he made the remark that this Rock Creek cottage was the only place he had ever seen which he would prefer to his own, albeit his own residence is one of the most costly and beautiful in the District of Columbia.

The scenery of Rock Creek for several miles above Pierce Plan- 57
tation is chiefly distinguished for its simple and quiet beauty.

57. Ibid.

It is probable that the structure described, from its antiquity, the luxuriant hospitality offered, and the mention of the side porch and the location of the side of a hill was the original Peirce residence.

Abner Peirce could well afford to be hospitable, for he owned 960 acres of land, valued at \$22,000. In addition he had \$165 worth of farm implements, and with the help of 18 slaves and his nephew, Peirce Shoemaker, operated a highly diversified plantation. He owned five horses, three mules, five milk cows, four working oxen, eight "other cattle," 50 sheep and 19 pigs. In the year before the 1850 census, he had raised 200 bushels of wheat, 20 of rye, 150 of corn, and 15 of oats. Additional products were 125 pounds of wool, two bushels of peas and beans, 500 pounds of potatoes, 12 bushels of buckwheat, 20 tons of hay, 156 pounds of butter, \$200 worth of market garden produce, 50 pounds of beeswax and honey, and he had slaughtered \$100 worth of meat.⁵⁸

In 1851 after Abner C. Peirce's death, the estate, including the mill, passed to Peirce Shoemaker. He was the son of a naval officer, David Shoemaker, and Abner's youngest sister, Abigail, and had acquired a literary education at Georgetown College. Married to a Washington belle, the former Martha Carberry, neice of the former mayor of

58. Schedule 1, 7th U.S. Census, (1850).

Washington, Thomas Carberry, and daughter of Lewis Carberry, civil engineer (and census taker for the District of Columbia), Peirce Shoemaker would operate the plantation until his death in 1891. In addition, he would attain some local renown for serving as a judge in local courts and for his "striking" resemblance to Robert E. Lee.⁵⁹ After nine years operating the farm, he had raised the cultivated area from 80 to 120 acres and increased the value of farm implements from \$165 to \$600.⁶⁰ The Civil War cost him his property in slaves. An act of April 16, 1862⁶¹ (12 Stat. 376) abolished slavery in the District of Columbia with compensation to the owners. As a result of this act, Shoemaker released his slaves on July 26, 1862. The Government

⁵⁹. John A. Saul, "In Memoriam--Louis Peirce Shoemaker, 1856-1916," Records of the Columbia Historical Society, 20 (1917), 296. A photograph of L. P. Shoemaker accompanies the article. A son of Peirce Shoemaker, Louis P. achieved considerable local prominence as a director of the Potomac Insurance Company, the Washington Loan and Trust Company, and Columbia National Bank. Real Estate was his major field.

⁶⁰. Schedule of Products of Agriculture, 8th U.S. Census (1860).

⁶¹. The slaves were: George Dover 45, Benjamin Lyles 44 (a mechanic), Joseph Simms 27, Rachel Lyles 43, Elizabeth Lyles 26, Matilda Lyles 24, Albert Lyles 2, Catherine Lyles 22, Leander Lyles 18, Rebecca Lyles 12, Oseola Lyles 9, Mary Ann Foster 35, Margaret Foster 18, Tobias Foster 15, Benjamin Foster 12, Annie Foster 8, Cornelius Foster 6, Catherine Foster 10, Eugene Foster 3, and Emma Lyles 3. Petition of Peirce Shoemaker, Filed May 12, 1862, Records of the Board of Commissioners for the Emancipation of Slaves in the District of Columbia, 1862-1863, Records Group 217, Micro. 520, National Archives.

paid him \$5803.50 in compensation for the 20 slaves.⁶²

Apparently this was reflected in the fact that in 1870 he had only 100 acres under cultivation, producing 60 bushels of rye, 370 of corn, and 40 of oats. His total acreage had shrunk to 608 and his stock to three horses, two mules, six cows, and two sheep.

But land values had apparently risen for he valued his property at \$83,080.⁶³ In 1876 he replaced the old Peirce residence with a modern dwelling, Clover Dale, where he spent his declining years.⁶⁴

But the days of Peirce plantation were numbered. By 1886 the movement to create Rock Creek Park was underway. In 1890 condemnation actions began to acquire lands for the park. In 1891 Peirce

Shoemaker died.⁶⁵ Litigation relative to the acquisition of Shoemaker and other Rock Creek property followed. The administration accounts of the Shoemaker estate show that the executors tried to increase the valuation of the Peirce lands by proving that there was gold on them. There are receipts for payments to experts to testify as to gold prospects, for surveying and making plats of the gold sites, for assaying gold and silver samples, for labor,

62. Shoemaker claimed, somewhat exorbitantly, \$20,000 for his 20 slaves. See *ibid.* and *Emancipation Papers M-Y*, Records of U.S. District Court for the District of Columbia Relating to Slaves, Records Group 21, Micro. 433, National Archives.

63. Schedule of Products of Agriculture, 9th U.S. Census (1870).

64. Butler, Memo--Pierce Mill, p. 8.

65. May 20, 1891. See obituary in *Washington Evening Star*, May 21, 1891.

tools, and explosives for making mines, and for prospecting.⁶⁶

All to no avail, for the D. C. General Sessions Court decided in November 1891 that even if there was gold on the lands, the Government, by virtue of the fact that the District of Columbia was essentially Federal land, had title to the mineral rights.⁶⁷

Blagden's or Argyle Mills

The next mill in line north of Peirce Mill was Thomas Blagden's Argyle Mills. The date of construction is unknown, but probably the mill was in operation early in the nineteenth century, for Isaac Peirce was unable to acquire the Argyle tract when he was buying up large chunks of land along Rock Creek in the late 1790's.⁶⁸ The census figures for 1820 and the various secondary sources give no information on its early history, but the mill was definitely operating before 1850, for then Charles W. Floecker was the miller. There were two mill wheels and two mill structures (a bone mill and a wheat mill). The fall of the mill race, which passed between the two mills, was 11 feet and in 1880 the mill wheels were overshot developing 40 horsepower at 30 revolutions

66. William Britt was paid \$20.00 to examine and testify as to gold prospects along Rock Creek. F. J. Fristoe was paid \$15.00 to assay seven gold and silver samples. The Washington Laboratory and Metallurgical Works was paid \$209.00 to assay gold samples and testify before the Rock Creek Park Commission. These and many other expenditures are recorded in the Administration File, Estate of Peirce Shoemaker, Recorder of Wills, District of Columbia.

67. Washington Star (Nov. 16, 1891).

68. Butler, Memo--Pierce Mill, p. 7.

per minute.⁶⁹ The mill finally went out of business in 1889 ostensibly a victim of flood but more truly another victim of the milling revolution caused by the introduction of the gradual reduction method.⁷⁰ Indentifiable production figures are available only for 1850 and 1880. When Charles Floecker was miller in 1850, there were three run of stone. Mill capacity for 1849-1850 was 150 bushels a day with the help of three hands. Production during the year had totalled 21,620 bushels of wheat, 4692 bushels of flour, 3011 bushels of rye and 583 barrels of rye flour, 5391 bushels of corn and 5303 bushels of meal, and 8660 bushels of offal. Production in 1880 reflected the sharp decline in the local grist mill wheat trade and the shift of the Rock Creek mills to feed production. Gaskins did a gross business of \$11,100. He ground 4000 bushels of wheat into 800 barrels of flour, ground 150 bushels of rye and 144,000 pounds of corn, and made 150,000 pounds of feed.⁷¹

Blagden's mill was abandoned and fell into ruin. Construction of the Rock Creek park road system obliterated the remains by the early twentieth century.⁷² No descriptions of Blagden's mill structure have been found. However, a photo of the abandoned Argyle Mill (p. 69) shows it to have been of stone construction like Peirce Mill.

69. Clark, "Mills," p. 103; Special Schedules, 10th U.S. Census (1880); B. H. Carpenter, and Plat of "Subdivision Argyle, Cowal and Lorn, The Estate of the Late Thomas Blagden, Esq. (July 1875), Records Group 42, National Archives.

70. The Great flood of 1889 broke the mill dam and bridge. George Simmons, "Roadside Sketch," Washington Star (? 1891), Clipping File, Library, Columbia Historical Society.

71. Schedule of Manufactures, 10th U.S. Census (1880).

72. Shoemaker, 40-41.

The mills were located on the west bank of Rock Creek a few hundred yards north of the confluence of the Creek and Broad Branch on a mill lot of about 46 acres. Nearby was a small dwelling, most likely the miller's house. High on a hill across the Creek to the east was the mill owner's mansion. It was a large L-shaped structure with porch or portico fronting on the south. In front of the house was a carriage drive and circle. The dimensions of the house are unknown but it must have been commodious.⁷³ In 1870, Laura Blagden, widow of late owner Thomas Blagden, who valued her property in real estate at \$500,000, lived there with her four children, a cook, a waitress, a chambermaid, a coachman, and a gardener. Near the main house were a number of outbuildings reflecting a life of ease and grace. Included were a graperies, ice house, barn, farm house, carriage house, and a "bowling saloon." Here Mrs. Blagden lived until her death in 1907.⁷⁴

Other Manufactures on Rock Creek:

Patterson's Paper Mill

An early water-powered manufacturing establishment was Edgar Patterson's Paper Mill, located on the east bank of Rock Creek just beyond the boundary of the Federal City at P and Boundary

73. Carpenter, Plat of Argyle, Cowall, and Lorn. Mabel Boyd in an unidentified newspaper clipping [1897?], Thomas P. Woodward Scrapbook, Columbia Historical Society claims that one of three Scots who originally patented the site built the mill. Mrs. Boyd also maintains that the Blagden home was until 1853 the country home of Baron B@disco.

74. Carpenter, Plat and Schedule 2, 9th U.S. Census.

Streets (Florida Avenue).⁷⁵ Commercially the location was a good one, for the main road between Georgetown and Bladensburg forded Rock Creek opposite the front door of the mill. Later a covered wooden bridge spanned the ford. The bridge was constructed near the water with a steep and precipitous roadway leading down to the very banks of the stream on either side.⁷⁶ The mill was built by Gustavus Scott and Nicholas Lingan about 1800. Ownership passed to Edgar Patterson about 1805. The mill was offered for sale by Patterson in 1821 and was leased by Andrew Way, a publisher, presumably for use as a paper mill in 1829. When Way disposed of it is not known, but the building was extant in 1868.⁷⁷ About 1820 the mill was described as being 120 feet long, three stories high, the first being stone. The survey of 1868 shows a single water wheel, and virtually no mill race, the dam located opposite the north radius of the wheel. Nearby in 1821 was a good dwelling house for two families. It was frame, two stories and had two kitchens.⁷⁸

Production figures for the mill are available only around 1820.

In that year Patterson had a two vat, "2 engine" mill in operation.

During the previous 12 months it had consumed about 30,000 pounds

75. See B. D. Carpenter, Plat of Paper Mill Tract (Oct. 19, 1868), Map Division, Library of Congress.

76. Hines, p. 92. William A. Gordon, "Recollections of a Boyhood in Georgetown," Records of the Columbia Historical Society, 20(1917), 127, recalls that the Paper Mill Bridge was the scene of the toughest fights (rock throwing, etc.) between gangs of Washington and Georgetown boys contesting hegemony over the artery between the two towns.

77. Clark, "Mills" p. 97

78. Washington Daily National Intelligencer (Dec. 29, 1821). In addition to the flour mill, a wool factory and stone quarry were offered for sale.

of Number 1 rags to make writing paper.⁷⁹ The next year he advertized for sale at the "Grocery store corner of Bridge and Montgomery Streets" in Georgetown 200 reams of No. 1 foolscap, 200 reams of folio and "4 to post" paper, 50 reams of "medium and demi Royal and super Royal paper," as well as cartridge, blotting and wrapping paper. In 1820 Patterson had a work force of six men, 12 women, and two boys. The mill must have been similar to the one described by Rochefoucault-Liancourt at Brandywine in 1795. There sharp knives turned by waterpower to pulverize rags in large vats. The labor associated with this process was hard and paid only about \$3.00 per week.⁸⁰

It was probably the effect of the Panic of 1819 that put Patterson out of business. In any case little is known of the mill or its operations after 1820. Today there is no visible evidence of its existence.

Parrott's Mill

Little is known about Richard Parrott's woolen mill located on Rock Creek "east of the ropewalk" on Mill Road (leading to Lyons Mill). Parrott, associated with I. and W. Westerman of London, operated it

79. Schedule of manufactures, 4th U.S. Census (1820). Patterson's was not a particularly large or prosperous mill for its time. The Duc de Rochefoucault-Liancourt, Travels through the United States of North America, The Country of the Iroquois and Upper Canada in the years 1795, 1796 and 1797, 2nd. Trans. H. Newman, 3(London, 1800) 506-08, describes Mr. Gilpin's paper mill in Delaware that in 1795 consumed 100,000 pounds of rags.

80. Ibid., 3, pp. 506-07; and Clark, p. 97.

as the Georgetown Wool and Cotton Manufactory. The mill carded wool and spun cotton. Parrott was apparently still working his mill in 1820 and supporting a household of five persons. He owned no slaves. Still he must have done well enough. His home was "Elerslie" located in what is now Montrose Park. Nothing remains of Parrott's Mill, but its story was surely a part of the early nineteenth-century attempt in the United States to build up domestic manufacturing to make the country less dependent upon European goods.⁸¹

Several mill seats besides those mentioned above existed on Rock Creek. White's Mill Seat (known later as Peter's Mill Seat) which was north of Peirce Mill was offered for sale in 1827. It is said the ruins of a mill were observed there (no specific location given) in the nineteenth century, but there seems to be no evidence to indicate that the site was used at all after 1800. Alan Clark mentions "Jones Mill" on Rock Creek north of Military Road, but this study has uncovered no information about it.⁸²

Lime Kilns

Excluding Peirce Mill, the remains of Godey's Lime Kilns east of Rock Creek near the intersection of 27th and L Sts., N. W., are

81. Ibid., pp. 98-99, and Schedule of Heads of Families, 4th U.S. Census (1820).

82. L. P. Shoemaker, p. 43; Clark, "Mills," pp. 103-04; Washington Daily National Intelligencer (Mar. 10, 1827) advertises Peter's Mill Seat and notes that the "city turnpike runs through this last tract of land."

the only reminders of nineteenth-century commerce of Rock Creek. Lime kilns were in operation along Rock Creek as early as 1830, the business growing up in connection with the C. & O. Canal.⁸³ In 1854, William H. Godey established his Washington Lime Kilns on the site and built up a substantial business. In 1860 he was employing 14 hands at four fires and had made 40,000 barrels of lime in the previous year. In the 1870's he passed the business to his son, Edward, who was operating on a lot fronting 500 by 500 feet on L and 27th and having access to the Creek. He employed 25 workmen in the manufacture of wood-burnt lime, cement, plaster, and hair. The capacity of the kilns was 2000 barrels of cool, white quick lime per week. The stone for burning was obtained from Harper's Ferry, shipped to Washington on the canal and the river and landed at the Godey property by machinery. In spite of setbacks, such as in 1869 when a Rock Creek freshet damaged the kilns and set fire to a lime filled warehouse, Godey's business, the oldest lime kiln in the District, prospered. In addition to the local area, the business reached Maryland and North Carolina. Edward Godey claimed that the "Government and other leading merchants" would use his lime and no other.⁸⁴

83. Zack Spratt, "Rock Creek Bridges," Records of the Columbia Historical Society, 53-56(1953-1956), 132.

84. Schedule of Manufactures, 8th U.S. Census(1860); Barton, Historical and Commercial Sketches of Washington, p. 99; Washington Daily National Intelligencer (Oct. 4, 1869).

Two other smaller lime producers were in the vicinity. The same Rock Creek flood that damaged Godey's kiln in 1869 also submerged "Mr. Dowling's" lime kilns and heavily damaged Castleman's. In 1870 Cammack and Decker established kilns between I and K Streets on 28th (NW). They had, in 1884, 25 workers making lime and dealing in hair, cement and plaster on a lot 150 x 150 feet. Their trade area included the District, Maryland, and Virginia, and the capacity of their kilns was 60,000 barrels per year. In 1883, farther up the Creek fronting on 29th St. south of M Street, Cartwright and Johnson began operating on two lots (80' x 120' and 80' x 146') running back to Rock Creek. They had installed two kilns "of the latest improved patent" each with a capacity of 90 barrels a day and "iron clad on top where they are fed." The lime business continued along Rock Creek until the twentieth century.⁸⁵

A Final Note

The story of the Rock Creek Mills is essentially local history, although it also is a part of the general story of agricultural commerce in the United States in the nineteenth century. It may be that for purposes of interpretation we know as much as is necessary about milling in general along Rock Creek but more should be known about Peirce Mill and Peirce Plantation.

85. Ibid. and Barton, pp. 119, 193-94.

APPENDIX

Appraisal of the
Goods, Chattels, and Personal Estate of Abner C. Peirce (1851)
(File No. 3189, O.S., RG 21, National Archives)

No 1

Small (illegible) his garrett	Beadstead and Sundry articles	\$5.00
Large room in ditto	Spinning wheels	1.00
	Bed shedding and beadstead	5.00
	2 writing desks 1 churn 3 demijons	3.00
	3 jars and 3 jugs warming pan	1.00
	3 boxes and contents	.25
first room 2d floor	Bead and beadstead counterpin	10.00
	Table washbole and Pitcher and glass	1.75
	1 window curtain	.25
2 Room	1 Beadstead	4.00
	2 Beads 2 Pillows and bolster counterpin	15.00
	1 Bureau	5.00
	1 Table washstand and 2 Pitchers	2.00
	1 glass Pitcher and looking glass	3.00
	pieces of carpiting	.50
3 3 Room	1 Beadstead and 2 Beads and counterpin 2 pillows and bolster	20.50
	1 oval Table mahogany	2.00
	washstand Bason	1.00
	Toilet stand and looking glass	1.00
	Bible	1.50
	2 Rocking Chairs	.50
	1 Patent scale	.75
	1 Carpet old	2.00
4th Room	1 Single beadstead pillow and coverlet	8.00
	1 ditto ditto ditto ditto	7.00
	1 clothes press and 2 curtains	5.00
	1 large pine chest	1.00
	3 window curtains	.75
1 Room 3 ^d floor	1 doz chairs	6.00
	Pair dining Tables mahogany	15.00
	1 ditto ditto ditto	8.00

Carried over \$134.75.

No. 2

Brought Over \$134.75

Table Cover	.50
1 Candlestand mahogany	.50
Sideboard	18.00
Shovels & tongs	2.00
Hand Irons	3.00
1 Eight day clock	40.00
Stair Carpet and rods	2.00
Carpet & Hearthrug	6.00
Pair plated candlesticks	1.00
****? Coons and Squirrels	1.00
1 glass Pitcher & 11 wine glasses	1.50
2 ditto dishes, 2 glass Plates, & 1 doz cupplates	2.00
1 china tea set	10.00
4 dishes	1.50
1 decanter	.50
2 window blinds	.25
1 Silver soup ladle	8.00
6 Silver Table spoons	18.00
6 ditto Tea	4.00
1 Secretary desk mahogany	4.00
1 Cupboard	2.00
1 Desk	1.00
1 Table	.37
1 Looking Glass	.25
1 Franklin Stove	2.00
Pair Handirons	.75
4 Barrels Herring at 4 1/2 each	18.00
Lot of Polk [Pork?]	14.00
Lot of Beef	6.00
Lot of lard	3.00
4 Barrels vinegar	18.00
Lot Barrels	2.00
9 Bea Hives	36.00

3d Room
3th Floor

Carried Forward \$361.87

No. 3

Brought Forward \$361.87

Farming:

Utensils

1 Horse rake	8.00
1 Goe cart	2.00
1 Double Swingletree	.50
1 Plough and Swingletree	1.50
1 ditto ditto	1.50
1 ditto Hillside and Swingletrees	8.00
1 9 inch Plough	2.50
1 double shovel Plough	3.00
1 wheelbarrow	4.00
1 Two Horse Waggon	20.00
1 old cart	2.00
2 spades	.37
3 rakes	.75
1 Broad Ax	1.50
3 Crow bars	3.00
4 weeding hoes	.50
2 Mattocks and 1 grubbing hoe	1.50
5 Forks	1.00
4 Shovels	1.50
2 picks and 1 Hoe	2.00
1 Small Harrow	2.50
1 Harrow \$8. 1 ox Harrow \$10	18.00
Lot of old barrels Half Bushel and	1.00
Lot of Potatoes in Cool House	18.00
1 Horse Cart	18.00
1 ox Cart	40.00
1 Mouse col ^d	25.00
1 white Cow and Calf	35.00
1 red buffaloe Cow	14.00
1 red Horne Cow	14.00
1 old Brindle Cow	10.00
1 mouse colloured Cow	12.00
1 old Belt Cow 1 horn	8.00
1 Short Tail Mouse col ^d Cow	14.00
1 Black Buffaloe Cow	16.00

Cows

Carried Over \$665.49

No. 5

Brought from page No. 4 1859.24

	Lot of old wheat in mill	5.00
	Lot of old Barrels and half Bushel & c	1.50
	13 sheep skins	4.00
	Lot wool in mill	20.00
	Lot Turnip seed	2.50
	Lot Buck wheat	6.00
	4 Scythes	4.00
	Lot plank in mill garret	20.00
	Lot of old Ploughs & c	3.00
Negroes	Samuel Dover, (in possession of A. P**** [sic])	150.00
	George Dover	500.00
	James Dover	450.00
	Rachel Liles	450.00
	Elizabeth Liles	400.00
	Matilden Liles	400.00
	Catherine Liles	300.00
	Henry Liles	450.00
	Leander Liles	250.00
	Thomas Liles	150.00
	Virginia Liles	50.00
	Mary Ann Liles	550.00
	Margaret A. Foster	200.00
	Tobias Foster	200.00
	Benjamin Liles	450.00
	William Liles	800.00
	Charles Simms (valuation for terms) of years	300.00
	Joseph Simms	850.00
Rock	1 Male (possession of A.P.)	60.00
	1 Horse	25.00
Sundries	Onions	6.00
	1 Cheese press	3.00
	Carried Over	\$ 9299.24

No 6

Brought Over 9299.24

Lot of Tobacco, 1 st quality	160.00
Lot of ditto 2 quality	11.25
Lot of Cider and Vinegar	90.00
Cider mill & c & c	15.00
1 Pair Timber wheels and fixtures	30.00
1 Old Carriage	20.00
2 Gates	10.00
Lot of old Iron	6.00
2 Sets of Old running gears and 2 wagons	70.00
7 Acres of growing corn valued	87.00
6 Pans and 1 jar in (dairie)	1.50
2 Churns 700 nibs and 1 milk Pail	2.00
Lot of Potatoes in Ground	125.00
1 Set of Knives and folks Ivery hadles	5.00
1 ditto ditto Buck ditto	1.00
3 Kitchen Tables	2.00
3 Skillets and 2 bolts	3.00
1 Braßs Kettle	4.00
Shovel Tongs and Andirons	2.50
1 Pair of Oxen	50.00
(Cash) Cash found in possession of A. C. P.	48.50
	<hr/>
	\$10,044.99

We hereby certify that the above is a true Inventory of the goods and chattels of Abner C. Pierce decised assass according to the best of our skill and judgement.

As, witness our hands this 25th July in the year of Our Lord Eighteen hundred and fifty one.

*****? Sworn
Enos Ray Appraisal

Distric of Columbia Orphans' Court, Washington County Court, August?,
1857

This day *****?(applied), Thomas Carbery, Executor of Abner C. Peirce late of Washington County, deceased, and made oath on the Holy Evangels of Almighty God that the aforegoing is a true and perfect Inventory of the personal estate of said deceased, that hath come to his hands or possession at the time of making thereof, that what hath since or shall hereafter come to his hands or possesion he will return an additional Inventory that he knows of no concealment of any fact of said deceased's estate by any person whatsoever, and that if he shall hereafter discover any concealment of this fact or another he will acquaint the Court with the same.

Ed N. Roach

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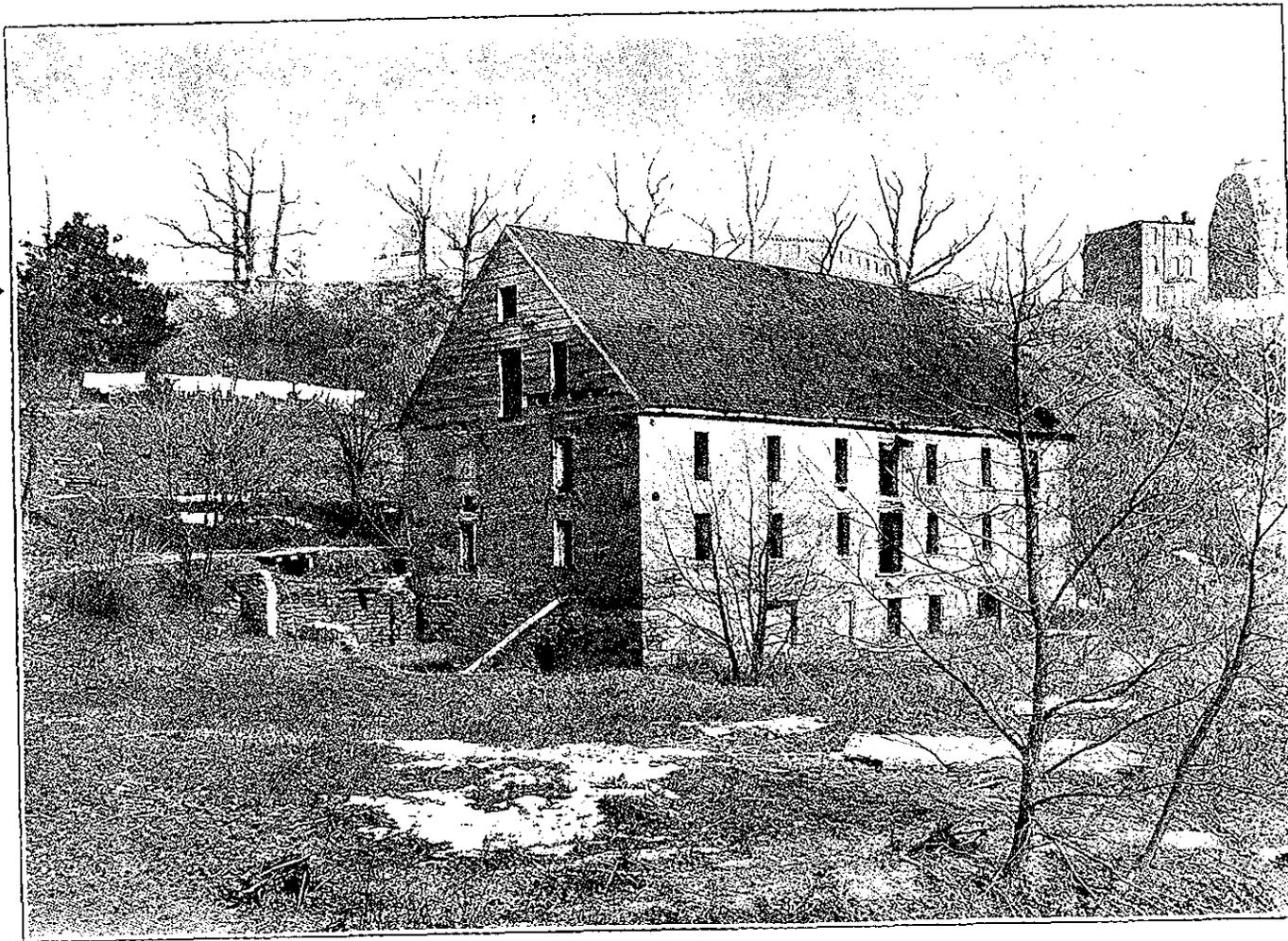
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Level of Mass. Ave. →



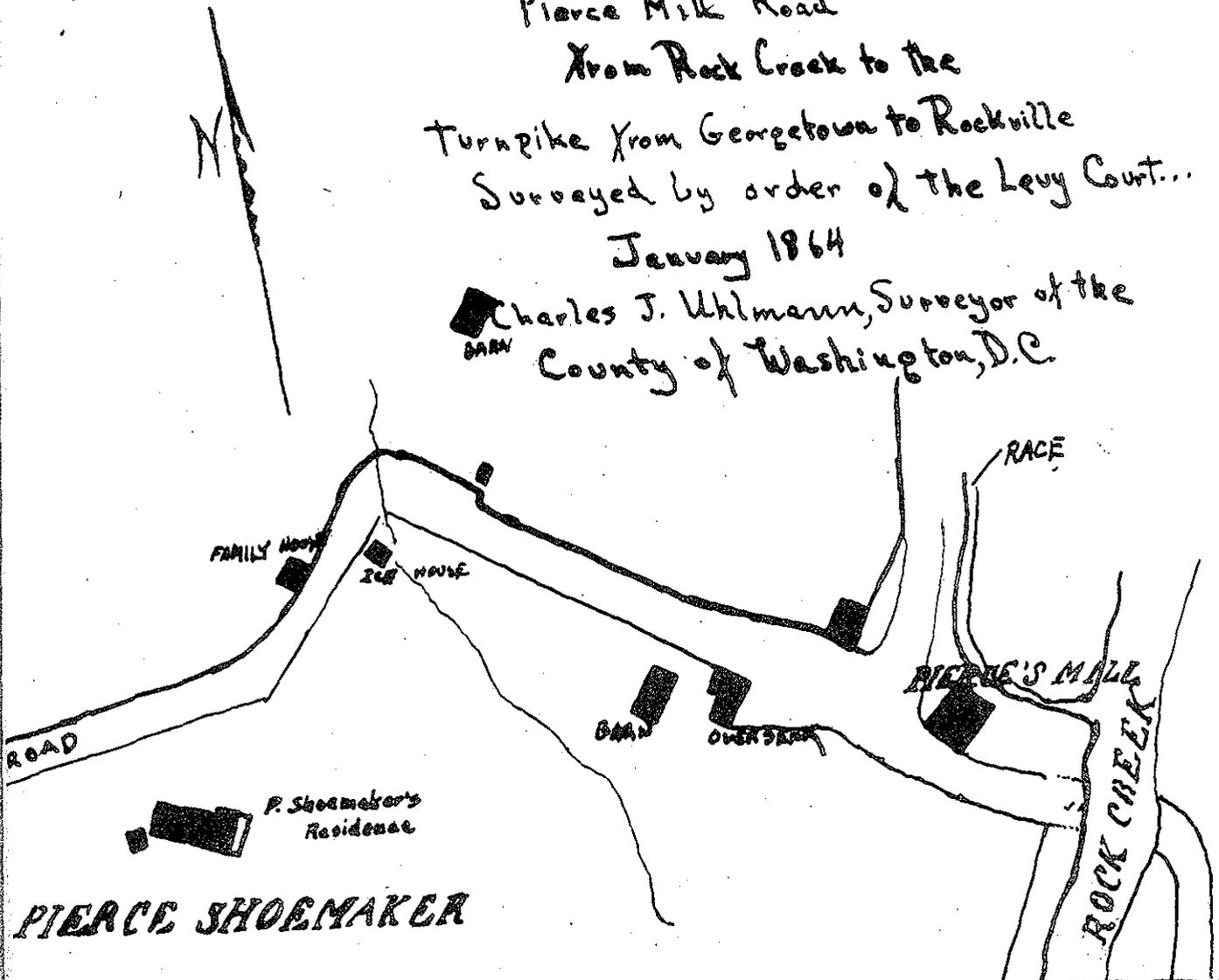
←Level of Mass. Ave

LYONS MILL (1908). Courtesy of the Library of Congress



BLAGDEN'S MILL (Abandoned). Records of the Columbia Historical Society, Vols. 31-32, Pl. 17.

Plat
 of the
 Pierce Mill Road
 From Rock Creek to the
 Turnpike from Georgetown to Rockville
 Surveyed by order of the Levy Court...
 January 1864
 Charles J. Uhlmann, Surveyor of the
 County of Washington, D.C.



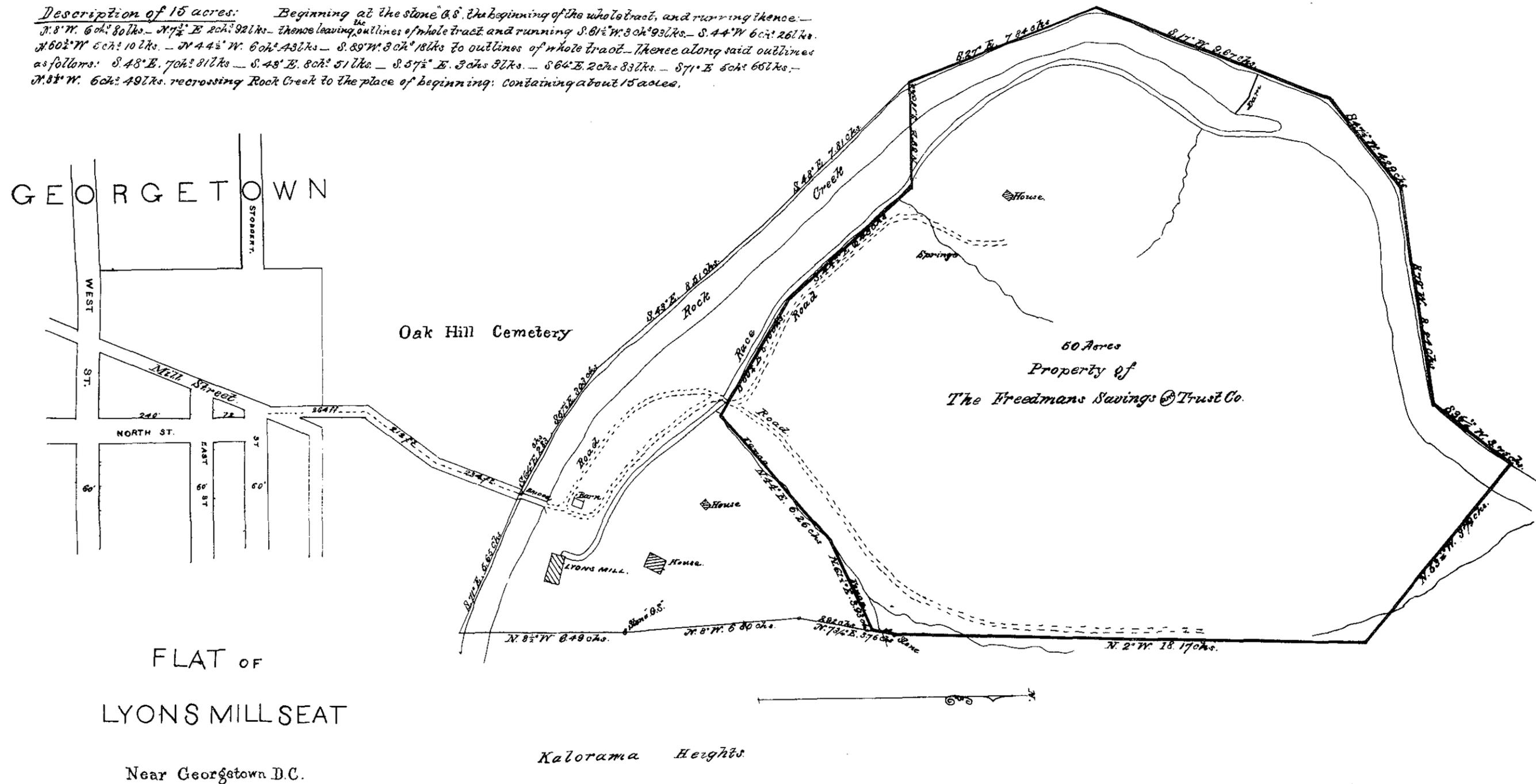
PIERCE SHOEMAKER

Detail from 1864 plat concerning the improvement of Peirce Mill Road. N. P. S. Files.



Blagden's Mill and estate structures, 1875. Detail from B.H. Carpenter's Plat of "Sub-Division of Argyle, Cowell and Lorn," Index No. NCP-0-56-58, Record Group 42, National Archives.

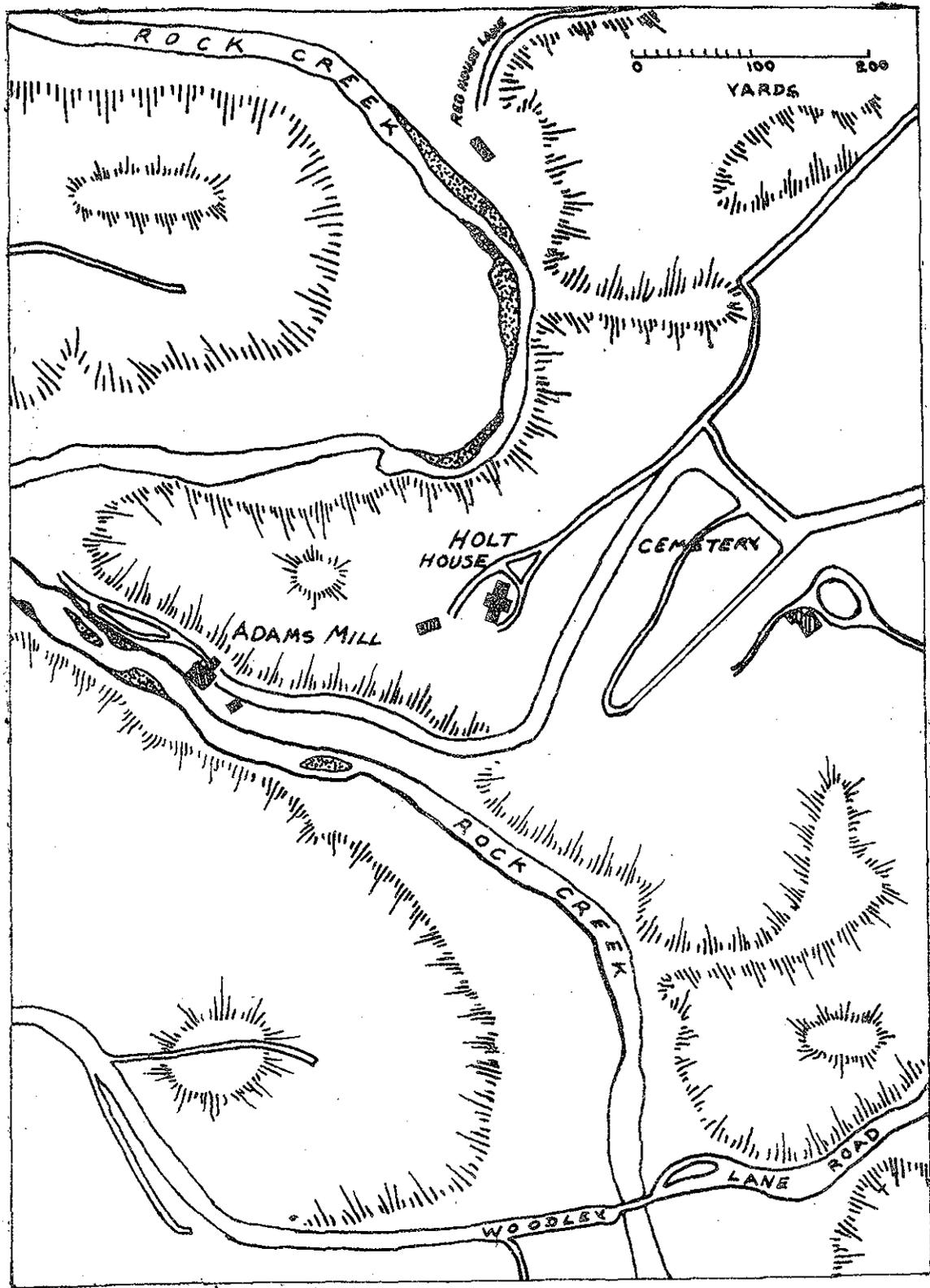
Description of 15 acres: Beginning at the stone B.S. the beginning of the whole tract, and running thence:—
 N. 8° W. 6 chs. 80 lks. — N. 7½° E. 2 chs. 92 lks. — thence leaving outlines of whole tract and running S. 61½° W. 3 chs. 93 lks. — S. 44° W. 6 chs. 26 lks. —
 N. 60½° W. 5 chs. 10 lks. — N. 44½° W. 6 chs. 43 lks. — S. 89° W. 3 chs. 18 lks. to outlines of whole tract. — Thence along said outlines
 as follows: S. 48° E. 7 chs. 81 lks. — S. 48° E. 8 chs. 51 lks. — S. 57½° E. 3 chs. 91 lks. — S. 64° E. 2 chs. 83 lks. — S. 71° E. 5 chs. 66 lks. —
 N. 8½° W. 6 chs. 49 lks. recrossing Rock Creek to the place of beginning: containing about 15 acres.



FLAT OF
 LYONS MILL SEAT
 Near Georgetown D.C.

Kalorama Heights

Detail from Flat of Lyons Mill Seat, 1878. Courtesy of the National Archives.



ADAMS or Columbian Mills. Tracing from U.S. Coast and Geodetic Survey Map of 1892 in the National Archives.