THE HALF HAS NEVER BEEN TOLD

Slavery and the Making of American Capitalism

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For Ezra and Lillian

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LEFT HAND

1805–1861

On July 5, 1805, almost fifteen years before William disappeared into the cotton country with James Stille, Charles Ball jogged down a South Carolina road. Ball had carried iron chains on his wrists and neck for five hundred miles down to South Carolina. Then the slave trader, M'Giffin, had sold him to Wade Hampton at a Columbia inn as part of the local Fourth of July celebration. Now it was late the next morning. Hampton sat low between the two wheels of a stylish horse-drawn chaise, periodically flicking a long, thin whip. He had told Ball to keep up, so Ball and the horse ran. Years later, Ball bragged that in his youth he could cover fifty miles a day. Still, he surely began to flag after two or three hours. What Ball eventually remembered most about that long day's run, however, was not his ragged breath, but the groves of huge trees through which the road periodically wound. He anticipated each one, grateful that he'd be jogging in the shade for a few minutes. The smell of the trees reached him before he even saw them. Once he was under them, the magnolias' sweet, musky odor overwhelmed him.[1]

Ever since the Civil War, magnolias have signaled plantations, and in popular understandings of what slavery was like—movies, novels, tourism, the pages of *Southern Living*, and even many historians' scholarly accounts—plantations were places where things didn't change. But as he ran out of the magnolias' shadow, Ball passed one newly cleared field after another. On the left was one full of stumps and piles of logs and brush, on the right a black wreck of charred logs and ashes. He jogged past still another, this one covered with rows of nearly waist-high green plants, slaves among them, bending and rising in lines between the rows.[2]

The night before, he had sat outside the inn and talked with an enslaved man who had once lived just across the Potomac River from where Ball had

grown up, a part of Maryland where slaves whispered rumors to each other, saying that down south where the Georgia-man took you, you'd have to eat cottonseed instead of food. The man told Ball that no, he'd have meat and meal. But the man assured him that his work in the cotton fields would be far more difficult and draining than the long hours of labor he had served in Maryland.[3]

The kind of slavery that Ball was encountering and that was emerging on the frontiers of the early nineteenth-century South was inherently new. For centuries, slavery in the New World had expanded by a process of extension: adding new slaves, clearing new fields from the next sugar island. The southwestern frontier was expanding—in part—via a similar strategy, though on an unprecedented geographic scale: it was not an island, but a subcontinent's rich interior stripped from its inhabitants. And not mere battalions, but whole armies of slaves were being moved to new soil. By 1820, whites had already transported more than 200,000 enslaved people to the South's new frontiers in the years since 1790 (see Table 1.1).

What made this forced migration truly different was that it led to continuous increases in productivity *per person*—what economists call "efficiency." The two ways out of the Malthusian trap were either to incorporate more "ghost acres"—land outside of industrializing core regions like Britain or, soon, the northeastern United States—or to create systematic increases in efficiency of production. The first slavery had not yielded continuous improvements in labor productivity. On the nineteenth-century cotton frontier, however, enslavers extracted more production from each enslaved person every year.

The source of this ever-rising productivity wasn't a machine like the ones that were crucial to the textile mills. In fact, you could say that the business end of the new cotton technology was a whip. And the fact that slave labor was unpaid, and compelled by brute force, was not new. That reality was as old as the human institution of slavery itself.

Just as old was the fact that those who were compelled to knuckle under to right-handed power used the art of secret resistance—such as slowing the pace of work when overseers were out of sight—to undermine the sway of the dominant. It had been the same in traditional societies for all those millennia when serfs, peasants, and slaves made up most of the labor force of most societies. Their craft was much like what Protestant reformer Martin Luther in the sixteenth century called "left-handed" power: the strength of the poor and the weak, the secret way of seemingly passive resistance to evil. Peasants and servants broke employers' tools, lied, played dumb, escaped

from masters. At the same time, they kept their secrets about all their crafts. In older slave regions like the Chesapeake, where Charles Ball had learned to cut and cradle wheat, a secret way of doing or making was a treasure that gave an enslaved man or woman a kind of leverage in his or her dealings with enslavers.[4]

Yet in the fields past the magnolia grove, the dynamic of right-handed domination and left-handed resistance, a struggle as old as the Pyramids, was changing. Something profoundly new was happening. Enslavers were finding ways to turn the left hand against the enslaved. Entrepreneurs redirected left-handed power by measuring work, implementing continuous surveillance of labor, and calibrating time and torture. All of this repeatedly accomplished enslavers' ongoing goal of forcing enslaved people to invent, over and over, ways to make their own labor more efficient and profitable for their owners.

New techniques that extracted ever-greater cotton efficiency radically changed the experience of enslaved people like Charles Ball and the 1 million who followed him into the cotton fields. But they also transformed the world beyond the fields. The amount of cotton the South grew increased almost every single year from 1800, when enslaved African Americans made 1.4 million pounds of cotton, to 1860, when they harvested almost 2 billion pounds. Eighty percent of all the cotton grown in the United States was exported across the Atlantic, almost all of it to Britain. Cotton was the most important raw material of the industrial revolution that created our modern world economy. By 1820, the ability of enslaved people in southwestern frontier fields to produce more cotton of a higher quality for less drove most other producing regions out of the world market. Enslaved African Americans were the world's most efficient producers of cotton. And they got more efficient every year, which is why the real price of the most important raw material of the industrial revolution declined by 1860 to 25 percent of its 1790 cost, even as demand for it increased by 500 percent (see Table 4.1). Cotton also drove US expansion, enabling the young country to grow from a narrow coastal belt into a vast, powerful nation with the fastest-growing economy in the world. Between the 1790s and 1820, the United States acquired a near-monopoly on the world's most widely traded commodity, and after 1820, cotton accounted for a majority of all US exports. And all of the transformations that spun from these facts depended on changes inflicted on the left hand.

A little while before sunset, the chaise finally stopped in the drive before Hampton's house near the Congaree River. Ball bent over, panting and retching. When he finally raised his head, Hampton's teenaged son was staring at him. The boy sneered with contemptuous menace and asked Ball if he knew

TABLE 4.1. COTTON PRODUCTION IN THE UNITED STATES

YEAR	COTTON MADE IN THE UNITED STATES (MILLIONS OF POUNDS)*	COTTON MADE IN WORLD (MILLIONS OF POUNDS)**	US SHARE OF WORLD PRODUCTION OF COTTON (MILLIONS OF POUNDS)*,**	US SHARE OF ALL COTTON IMPORTED TO BRITAIN*,**	COTTON AS SHARE OF ALL US EXPORTS/ MERCHANDISE*	REAL PRICE OF COTTON (INDEX, 1820 = 100)**
1791	2	469	> 0.01	0.01		191
1801	40	531	0.08	0.34	0.14†	116
1811	67	556	0.12	0.42	0.22	78
1821	150	630	0.24	0.63	0.49	73
1831	322	820	0.39	0.73	0.42	53
1841	559	1,044	0.54	0.69	0.52	48
1851	1,120	1,482	0.76	1.04	0.63	46
1860	1,536	2,500	0.61	0.88	0.61	48

Sources: * Susan B. Carter, Scott Sigmund Gartner, Michael R. Haines, Alan L. Olmstead, Richard Sutch, and Gavin Wright, eds., *Cambridge Historical Statistics of the U.S.* (Cambridge, MA, 2006); ** Stuart Bruchey, *Cotton and the Growth of the U.S. Economy, 1790–1860: Sources and Readings* (New York, 1967). †1801 statistics incomplete, US exports from 1802

how to pick cotton. Just then the elder Hampton walked past. He ordered Ball to put the horse away and help the gardener. In the garden, Ball pulled weeds as his body cooled from the run. As the sun set, a boy came with a message: come to the overseer's house to find out where to stay that evening. As they walked away from the big house where Hampton lived, they heard the oncoming tramp of feet. From the lowering dusk strode the slave labor camp's white overseer. After him straggled 170 black men, women, and children. Behind them, night fell on the fields.[5]

BEFORE SUNRISE, A LOUD, braying noise shattered Ball's sleep. When the overseer's horn blew for the second time, his bare feet hit the dirt floor. He stumbled out of the hut to which he had been assigned, rubbed his eyes, and looked around to see something new. Around him, shaping up like day laborers, was the army he'd seen the previous evening. In Maryland and Virginia, labor crews usually numbered only a dozen or so. These people also looked different. Even after a month-long march south, "it could be seen that my shirt and trowsers had once been distinct and separate garments. Not one of the others had on even the remains of two articles of clothing." Many of the men wore only long, tattered shirts. Many women only had skirts. Some teenage boys and girls were completely naked. And the state of the bodies thus exposed worried Ball even more. Their skin was reddish and ashy, their hair matted and stringy. Bones stood out. Skin hung slack where muscle had atrophied.[6]

As Ball took in his new peers, the overseer stepped into their midst. Here was a tightly contained white man, of a type much like M'Giffin the Georgiaman. He turned, beckoned silently, and the crowd followed. "A wretched-looking troop we were," Ball said years later, picturing the moment, still watching them (and himself) marching toward the fields of green, waist-high plants that soon loomed up in the gloaming. They trudged past uncounted rows, through a mile of clods drying from the hoe. Beyond a grove of trees, the rising sun showed that a vast field opened beyond. On its edge the overseer stopped them. He announced eleven men as "captains" for the day, and from his slate named fifteen laborers to follow each. Ball was to go with Simon. Marching his troop to a section of planted furrows, Simon posted his soldiers: one adult or two children to the head of each row.

Every forced migrant whose story has survived tells us that when they crossed the threshold of the fields of a new slave labor camp, they entered a world that was fundamentally different from the one in which they had toiled before. As Ball lined up by the first waist-high cotton plant of his row, he was about to learn a new way of working, one meant to occupy most of the waking moments remaining to him on earth. He saw Simon take a row, lift his hoe, and begin to work rapidly down the side of his furrow. Everyone else began to do the same, in a great hurry. Ball could see that each of them had to chop all the weeds in their row without damaging the cotton plants. But then the man in the next row warned him that no one was allowed to fall behind the captain. Ball realized that thus "the overseer had nothing to do but to keep Simon hard at work, and he was certain that all the others must work equally hard." And the overseer was already stalking across the rows, whip in hand. Ball put his head down and kept his hoe moving, trying to keep up with Simon's furious pace.[7]

By the time he reached the end of the first row, Charles Ball had been exposed to crucial differences between the forms of enslaved labor demanded in Maryland and the new ones on the cotton frontier. Survivors identified these differences not as idiosyncrasies, but as a new system of enslaved labor. Most forced migrants had been brought up working according to the rules of one of two southeastern regimes. In some regions, a "task" system had prevailed, as in the South Carolina and Georgia "low country." In those rice swamps, each day enslavers assigned each worker a specific job. Custom fixed the volume of each daily piece of labor, so that a man knew that on a day when he had to chop weeds, his "task" was to cultivate an acre of rice and no more. As historians have pointed out, a long history of "negotiations" between masters' power and the cunning of the enslaved had created the task system. It

contained benefits for both left hand and right. Those who finished early could tend their own gardens, help others to work, or simply relax for an hour or two. Without direct supervision, forced labor was usually inefficient, but tasking relieved enslavers of this dilemma by offering diligent slaves an incentive: free time. No wonder owners who tried to increase customary tasking levels and limit free time faced direct or covert resistance.[8]

Yet most enslaved migrants marched to places like Congaree did not come from the low country. They came from the greater Chesapeake of Virginia, Maryland, and their North Carolina and Kentucky offshoots. A watercolor sketch made in 1798 by Benjamin Latrobe, designer of the US Capitol, shows the prevalent form of labor on Chesapeake tobacco farms. A white overseer stands on a stump, a pipe in his mouth and his whip under his arm, supervising a "gang" of enslaved women as they cultivate tobacco plants. This gang system relied on direct surveillance of labor, but by whom? Tobacco planters often grew their crop on many small and widely scattered plots of land. They had to coordinate complex operations carried out by small groups. Most had no choice but to delegate surveillance to black drivers who led labor crews outside of direct white observation. And while enslavers in the Chesapeake pushed slaves to carry out their field work quickly, drivers had their own incentives. Workers moved across Chesapeake fields in ragged disorder set by divergent individual paces, not ranks formed up in lockstep like the ones that marched that July morning at Congaree.[9]

The best-known innovation in the history of cotton production, as every high-school history student knows, is the cotton gin. It allowed enslavers to clean as much cotton for market as they could grow and harvest. As far as most historians have been concerned, the gin is where the study of innovation in the production of cotton ends—at least until the invention of the mechanical cotton picker in the 1930s, which ended the sharecropping regime. But here is the question historians should have asked: Once enslavers had the cotton gin, how then did enslavers produce (or *have* produced, by other hands) as much as the gin could clean? For once the gin shattered the processing bottleneck, other limits on production and expansion were cast into new relief. For instance, one constraint was the amount of cheap, fertile land. Another was the lack of labor on the frontier. So enslaver-generals took land from Indians, enslaver-politicians convinced Congress to let slavery expand, and enslaver-entrepreneurs created new ways to finance and transport and commodify "hands." And, given a finite number of captives in their own control, entrepreneurs created a complex of labor control practices that enslaved people called "the pushing system." This system increased the number of acres each

captive was supposed to cultivate. As of 1805, enslavers like Hampton figured that each "hand" could tend and keep free of weeds five acres of cotton per year. Half a century later, that rule of thumb had increased to ten acres "to the hand." In the first minute of labor Charles Ball had encountered one of the pushing system's tactics, in which overseers usually chose captains like Simon to "carry the fore row" and set the pace.[10]

We do not know who invented the pushing system. But it was already present when Charles Ball got to Congaree in 1805. And slavery's entrepreneurs carried it west and south, sharing it as they went, like Johnny Cottonseed. "You find the Virginian upon Red River, you find the North Carolina man, the South Carolina man, the man from Georgia, alongside of him," wrote one enslaver about the new neighborhoods in which greenhorns from tobacco or rice regions learned from their peers how to extract the maximum number of acres from each hand. On early-summer visits to town, migrant entrepreneurs began their street-corner conversations by asking "Well, how does your cotton look?" Thus, wrote another migrant planter, "any increased quantity of product, by any new course of cultivation, spreads like the fire of the American prairie"—all the way up to ten acres to the hand.[11]

Enslavers shared innovations because the world cotton market was an example of what economists call perfect competition. In fact, it was *the* example—it was used later in the nineteenth century as the archetype in which the great British economist Alfred Marshall discovered the famous concepts of supply-and-demand curves. The market was so big that no individual producer could control even 1 percent of the total. This meant that individual producers had no reason to hoard innovations in the extraction of labor from neighbors, for a neighbor's increase in production did not change the price the innovator received by a visible amount. Enslavers also had a vested interest in the ability of their neighbors to suppress their own slaves' resistance. So planter-entrepreneurs readily shared their labor-control innovations: "The intercourse of experience," wrote one enslaver, is the "solder" of slaveholders' communities, in which "every individual is bound not only by his duties to others, but by his own interests, to extend and nourish this useful interchange of systems."[12]

Innovation in violence, in fact, was the foundation of the widely shared pushing system. Enslaved migrants in the field quickly learned what happened if they lagged or resisted. In Mississippi, Allen Sidney saw a man who had fallen behind the fore row fight back against a black driver who tried to "whip him up" to pace. The white overseer, on horseback, dropped his umbrella, spurred up, and shouted, "Take him down." The overseer pulled

out a pistol and shot the prone man dead. "None of the other slaves," Sidney remembered, "said a word or turned their heads. They kept on hoeing as if nothing had happened." They had learned that they had to adapt to "pushing" or face unpredictable but potentially extreme violence. Enslavers organized space so that violent supervision could extract the maximum amount of labor. "A good part of our rows are five hundred and fifty yards long," wrote one Tennessee cotton planter in the 1820s. He had created a space in which he could easily identify stragglers. He also simultaneously ensured that when he inflicted exemplary punishment, he did so in clear view of a large audience.[13]

THOUGH THE ROWS WERE long and Simon's pace was hard, Ball was getting his wind back at seven a.m., when they all paused to eat a breakfast of cold cornbread. Charles Ball and Simon exchanged a few grunted words as they returned to their side-by-side rows. Already, the captain recognized that Ball was one of the few in the field physically capable of keeping up without panicked effort. Both returned to their toil, hoes swinging like metronomes, sweat rolling down arms and backs. The overseer kept the time. Once an hour he allowed the men, women, and children to walk over to a wagon loaded with water barrels and drink a ladleful of water.[14]

At noon the hands at Congaree ate another hurried meal: more cornbread, a little salt, one radish each. Ball was catching on to other ways in which the pushing system maximized the amount of labor extracted from him—for instance, the tricks that filled every minute of daylight with money-making labor. At the end of a row, Simon whispered to Ball to conserve what strength he could, for they would have to work until it was too dark to tell cotton from weed. There would be no leaving the field in time to make the evening meal. In fact, the overseer had assigned an old woman to stay back in the quarter and bake everyone's suppertime cornmeal ration. Likewise, when, thirty years later, Henry Bibb was transported up Louisiana's Red River to a slave labor camp, his new enslaver ordered slaves to gorge themselves with a heavy breakfast two hours before sunlight. They were then allowed but one break before nightfall.[15]

If Ball got ahead of Simon for a moment, stood up straight to wipe off the sweat of this long afternoon, and looked around at the bodies behind him, he'd see two more pushing-system elements that enabled entrepreneurs like Wade Hampton to plant and cultivate more and more acres of cotton over time. First, almost everybody who lived in Wade Hampton's huts—men and women, children and adults—was in the field. Second, they were all doing

the same job. In 1827 a Virginia-born enslaver wrote to his business partner asking him to procure "a number of slaves sufficient to make 40 working hands—which you know in a cotton country will be much less than in a grain country." Chesapeake slave quarters had large numbers of nonworking children and old people as well as those who did some kinds of labor and not others. But cotton entrepreneurs worked men, women, and older children together for most of the year at jobs that were identical.[16]

In labor camps like Congaree, a few men became "captains" or even "drivers." But torn between the interests of enslavers, their own interests, and those of their peers, drivers were subject to frequent demotions. Women, meanwhile, usually did not even have these options. The flattening of the job hierarchy made men, women, and even children roughly equal in the sense that they did the same kind of labor. Many women and children could accomplish some elements of cotton labor just as well as many men. The elimination of most distinctions among the enslaved, and the curtailment of possibilities for independence, put into practice the theory incipient in the way entrepreneurs sold people at Maspero's. Everyone had a uniform status—that of cotton "hand."[17]

The product of their labor was also uniform. When the row was finished, the long line of red dirt Ball had turned over disappeared into the sameness of hundreds of identical rows of identical green plants. And the rows stretched on ahead. Simon's crew finished one set and started another, still moving at his pace as he carried the lead row. Slowly, slowly, the shadows extended out from the trees on the field's western borders. The vast gang of "hands" toiled on, all straining to hear the same sound.

At last, as dark settled, the overseer called a halt. The laborers shouldered their hoes and turned for home. Along the way, Ball fell into step with a slow-walking woman. She told him her name was Lydia. Worn and haggard, she carried a baby on her back in a sling of cloth. The baby had been fathered a year ago, soon after she had arrived from Ball's own Maryland. They talked as the others outpaced them. But as Ball began to ask her how she had adapted to life in the cotton fields, the overseer's horn blew. "We are too late, let us run," Lydia blurted.

Ball arrived back at the slave cabins just as the overseer finished his roll call. Lydia came toiling up a minute later, with the baby bouncing on her back. "Where have you been?" the overseer demanded. "I only stopped a while to talk to this man," she said, "but I shall never do it again." She began to sob. The overseer ordered her to lie down on her stomach. Handing her

baby to another woman, she complied. The white man pulled up her torn shift, exposing her buttocks and back. Then he drew from his belt the lash he had been carrying folded there all day.

The whip, ten feet of plaited cowhide dangling from a weighted handle, was, Ball realized, "different from all other whips that I have ever seen." The impression it made would never leave him. Many other migrants reported the same feeling of shocked discovery. In Virginia and Maryland, white people used cat-o'-nine-tails, short leather whips with multiple thongs. These were dangerous weapons, and Chesapeake enslavers were creative in developing a repertoire of torment to force people to do what they wanted. But this southwestern whip was far worse. In expert hands it ripped open the air with a sonic boom, tearing gashes through skin and flesh. As the overseer beat Lydia, she screamed and writhed. Her flesh shook. Blood rolled off her back and percolated into the packed, dark soil of the yard.[18]

Those who had seen and experienced torture in both the southeastern and southwestern regions universally insisted that it was worse on the southwestern plantations. Ex-slave William Hall remembered that after he was taken to Mississippi, he "saw there a great deal of cotton-growing and persecution of slaves by men who had used them well" back in the Southeast. Once "the masters got where they could make money[,] they drove the hands severely." White people also recorded the way that southwestern captivity distilled and intensified slavery. On a sheet of lined notepaper saved by small-time cotton planter William Bailey survives a strange set of lyrics in the voice of an enslaved migrant, a man moved to the cotton frontier: "Oh white folks, I hab crossed de mountains / How many miles I didn't count em." Perhaps Bailey wrote down verses he heard. Perhaps he wrote them as a "darky song" parody. Either way, they tell us what people at both ends of the whip understood as its purpose. "Oh, I'se left de folks at de old plantation / And come down here for my education," he wrote. What did the "singer" define as his "education"? "De first dat I eber got a licken / Was down at de forks ob de cotton picken / Oh it made me dance, it made me tremble / I golly it made my eyeballs jingle."[19]

Survivors of southwestern torture said their experiences were so horrific that they made any previous "licken" seem like nothing. Okah Tubbee, a part-Choctaw, part-African teenager enslaved in Natchez, remembered his first time under "what they call in the South, the overseer's whip." Tubbee stood up for the first few blood-cutting strokes, but then he fell down and passed out. He woke up vomiting. They were still beating him. He slipped into darkness again.[20]

Under the whip, people could not speak in sentences or think coherently. They "danced," trembled, babbled, lost control of their bodies. Talking to the rest of the white world, enslavers downplayed the damage inflicted by the overseer's whip. Sure, it might etch deep gashes in the skin of its victim, make them "tremble" or "dance," as enslavers said, but it did not disable them. Whites were open with those whom they beat about the whip's purpose. Its point was the way it asserted dominance so "educationally" that the enslaved would abandon hope of successful resistance to the pushing system's demands.

"Their plan of getting quantities of cotton," recalled Henry Bibb of the people who drove him to labor on the Red River, "is to extort it by the lash." In the context of the pushing system, the whip was as important to making cotton grow as sunshine and rain. That's exactly what Willie Vester, a Mississippi overseer, told his friends back in North Carolina. He hoped to ride back home for a visit on a nice new horse, sporting a suit of fine clothes. To do so, he needed to "make a little more [money]." The way to do that was to "walk over the cotton patch and bring my long platted whip down and say 'who prowd[,] boys[?]' and see a fiew more bales made." Likewise, in 1849 a migrating North Carolina planter hired a "Mississippi overseer" to ensure that his "hands" would be "followed up from day break until dark as is the custom here." The overseer would drive each "fore row" in a vast and easily surveyed field, and he would "whip up" those who fell behind. All that pushing, the owner calculated, would force "my negroes [to do] twice as much here as negroes generally do in N.C."[21]

Finished with beating Lydia, Hampton's overseer turned to Charles Ball, who stood frozen on the edge of the lamplight. "When I get a new negro under my command," he said, "I never whip at first; I always give him a few days to learn his duty. . . . You ought not to have stayed behind to talk to Lydia, but as this is your first offence, I shall overlook it." Ball nodded mutely and "thanked master overseer for his kindness." As he chewed his cornbread, he reflected on his new reality: "I had now lived through one of the days—a succession of which make up the life of a slave—on a cotton plantation," he later wrote.[22]

IN THE COURSE OF surviving his first day, Ball had discovered the new pushing system: a system that extracted more work by using oppressively direct supervision combined with torture ratcheted up to far higher levels than he had experienced before. Between 1790 and 1860, these crucial innovations made possible a vast increase in the amount of cotton grown in the United

TABLE 4.2. INFANT DEATH RATES ON SELECTED SOUTHWESTERN SLAVE LABOR CAMPS

LABOR CAMP	STATE	YEARS OF RECORD	NUMBER OF BIRTHS	TOTAL NUMBER OF CHILD DEATHS	INFANT DEATH RATE PER 1,000
Magnolia	MS	1838–1855	54	29	430
Watson	AL	1843–1865	157	81	280
McCutcheon*	LA	1832–1863	221	N/A	213
Minor	LA	1849–1863	217	N/A	184

Sources: R. C. Ballard Papers, Southern Historical Collection, University of North Carolina, Chapel Hill; Henry Watson Papers, David M. Rubenstein Rare Books and Manuscripts Library, Duke University, Durham, North Carolina; Richard H. Steckel, *The Economics of U.S. Slave and Southern White Fertility* (New York, 1985).

* In the McCutcheon documents, only 14.6 percent of all recorded infant deaths occur in the first twenty-eight days after birth, whereas other statistics suggest that a rate of 50 percent is much more typical. This fact, in turn, suggests a substantial under-enumeration of both births and deaths. The real infant death rate was probably about 350.

States. They did so at an immense human cost, which could be calculated in many ways. We could count those who caught malaria in the fields of a more intense disease environment, or those who died young, their bodies malnourished by insufficient food and intense labor. The rate of infant mortality in the new slave labor camps was extraordinary: one of every four children born died before reaching his or her first birthday. This is five times the rate of present-day Haiti, the same as the rate that would have been found in the most malaria-infested parts of nineteenth-century West Africa or the Caribbean (see Tables 4.2 and 4.3). And every burst of forced migration produced a decrease in the average life expectancy of African Americans, not just for infants, but for the whole population.[23]

But other costs cannot be measured. Although Ball had been able to keep up with Simon, he foresaw that the pace of work on coming days would be difficult and unvarying. He could tell that his clothes would wear down to rags. He also clearly ran the constant risk of suffering violent, humiliating assault. Ball had not been beaten since he was fifteen. Back in Maryland, he had been what owners called "a well-disposed negro" who tried to build a life within the system. Anyway, the pathological bullies that white supremacy bred in such high numbers preferred easier targets than someone as large and strong as Ball. But he could see that on the Congaree, if white folks thought that doing so would result in more cotton, they would find a way to bend even the toughest black man to the new bullwhip.[24]

TABLE 4.3. COMPARATIVE INFANT DEATH RATES

GROUP	APPROXIMATE DEATH RATE PER 1,000 INFANTS BORN
All African Americans, 1820–1860	256 (girls) / 296 (boys) *
Enslaved infants on two South Carolina cotton plantations, 1800s	181 **
Jamaican slaves, 1820s	248 (girls) / 298 (boys) ***
Nineteenth-century whites (US)	162 †
United States, 2006	6.43 ††
Haiti, 2006	71.65 ††

Sources: * Jack Ericson Eblen, "Growth of the Black Population in Ante Bellum America, 1820–1860," *Population Studies* 26 (1972): 273–289. (N.b., this is a life table estimate and therefore likely higher than a crude infant mortality rate.)

** Richard H. Steckel, *The Economics of U.S. Slave and Southern White Fertility* (New York, 1985), 88–89.

*** B. W. Higman, *Slave Populations of the British Caribbean, 1807–1834* (Kingston, Jamaica, 1995), 319. (N.b., this is a life table estimate and therefore likely higher than a crude infant mortality rate.)

† Actuarial estimate for 1830–1860 made in 1895. See Michael R. Haines and Roger C. Avery, "The American Life Table of 1830–1860: An Evaluation," *Journal of Interdisciplinary History* 11 (1980): 11–35, esp. 88.

†† Central Intelligence Agency, *World Fact Book*, https://www.cia.gov/library/publications/the-world-factbook/index.html.

Intimidated, Ball strove hard in the days that followed to labor at the torrid tempo of the southwestern pushing system. By the time July rolled toward its close, he had begun to outpace Simon. The "hands" had chopped weeds from every cotton row three times over, and now the plants were "laid by"—tall enough to shade the rows and keep down the growth of weeds. Now Ball began to look around. One Sunday, exploring, he found a body dangling in the woods—a runaway, despairing of escape, unwilling to return. Through his own long march he had stuck to his resolution to stay alive for something better to offer itself. So now, as he hilled sweet potatoes, he calculated how many he could carry in his shirt if he slipped off for Maryland. As he pulled leaves from the corn stalks, fodder for the livestock, he looked at swelling ears and mentally mapped the months when they would be ripe on the stalk on the banks of all the rivers he'd counted and named on his route south.

July turned to August. Carbohydrates sweetened in the corn kernels. But something was happening in the cotton fields, too. The plants strained up to man height and added leaves. The branches grew "squares," or buds. And white people began to dole out pennies to slaves in exchange for baskets

woven by firelight. They inspected cotton-gin machinery. They checked the weighting of whips. They went to town and bought sacks, new slates, chalk, ledgers, pens, and ink. And they mailed off expectant, calculating letters that yammered on, as the wife of a Louisiana planter complained in 1829, about nothing but how the profits of the cotton now in the fields would let them continue "buying plantations & negrows."[25]

"Cotton! Cotton! Cotton! . . . is the theme of nearly all the conversations now a days," wrote one migrant to Florida. "Even the Ladies talk learnedly upon the subject. . . . If you see a knot of Planters engaged in earnest conversation, without even approaching, you may [know] the topic of their discourse. Get within earshot of them, and, I will guranty, that the first word that you will hear will be *cotton*." As planters talked, the squares grew and swelled behind cream-and-yellow blossoms. Growing heavier every day, they tilted this way and that until stalks arched and groaned. One day the first boll exploded open, and then the next one, and then the next, millions. A white blizzard settled on the green fields. One more night, and another first day in the life of a hand was here.[26]

ON AN EARLY MORNING at the beginning of September, the overseer ordered the enslaved people at Congaree back into the cotton fields. He gave each man, woman, and child a long sack and ordered them to take a row and start picking. As Ball bent over the plants in the gloam of near-dawn, wetting his shirt with cotton-leaf dew, he found that picking required sharp eyes, speedy hands, and good coordination. Slip up and the hand clutched a leaf, or fingers pricked on the hard points of the drying "square" at the base of the boll. Grab too much, and a mess of fiber and stem sprung loose in one's hand. Grab too little and the fingers twisted only a few strands. Finally reaching the end of his first row, Ball emptied his sack into his own large basket. Suddenly he realized that women and even children were already far down the neighboring rows. As the pickers bent in ever-more hurried motion, their hands were blurs. Not just their right hands, in the fastest cases, but their left as well. But when Ball tried to set both hands to work, his arms flailed like disconnected parts. His fingers lumbered. For the first time since he was a boy, he felt out of control of his body. Muscular strength could not solve this task.[27]

The sun crawled in a slow parabola across the sky. All day long the sound of click, click, click rose from almost-silent fields, as nails tapped on hard pods and fingertips pulled bolls. The overseer rode his horse slowly across the rows, whip in hand. By late afternoon, Ball was exhausted and anxious.

Image 4.1. This 1853 illustration shows men and women picking furiously. The men wear palmetto hats made in New England. "Picking cotton in Louisiana," *Harper's New Monthly Magazine,* March 1854, p. 456.

Looking left and right at the baskets of others, he felt shrunken, "not equal to a boy of twelve or fifteen years of age." Cotton-picking had little to do with physical strength. It broke down distinctions of size and sex. Women were sometimes the fastest pickers in a cotton slave labor camp. Young migrants could learn picking more quickly than their elders. In fact, Ball heard that "a man who has arrived at the age of twenty-five before he sees a cotton field will never, in the language of the overseers, become a *crack picker.*"[28]

In their heads, in conversations, and on paper, planters obsessively calculated equations of hands and cotton, always coming up with the same solution: wealth. A visitor reported that according to Florida calculations, "a hand generally makes from 5 to 6 bales weighing 400 lbs—at 15 [cents per pound] five bales to the hand will give $300—and at 15 six bales will give you $360, at 10 five bales will give you $200 and 6 bales at 10 cents will give $240." Looking at the soil of Mississippi's Yazoo River district, Clement Jameson concluded, "I shall make close to $250.00 to the hand." In Alabama, wrote a woman from North Carolina, "a thousand witnesses will

attest that you may average on each hand about four to six hundred dollars clear of expense." Making more money allowed one to buy more slaves, thus harvesting more cotton, which meant yet more money. Mississippi farmer L. R. Starks asked a slave-dealer to send a young man he wanted to buy at "the first opportunity. . . . I have purchased five very likely negroes this season. We have raised great crops the last season. I am planting 130 acres in Cotton. I shall not be able to pay for the boy forthwith perhaps, but can make the money sure upon time."[29]

Yet as the acres of plants grew and the squares ripened into bolls, the key unknown variable was the speed at which hands would pick. As early as 1800, enslavers deploying the pushing system could make their captives raise more acres of cotton than they could harvest between the time the bolls opened and the time one had to begin planting again. Picking was now the bottleneck: the part of the cotton production process that took the most labor, and the part that determined how much money enslavers would make. And as Ball was discovering, picking was difficult, and picking fast was very difficult.

In 1820, Mississippi enslaver John Ker reminded himself that because his brother-in-law's "hands" were "unaccustomed to the cultivation and picking of cotton [it] would render it prudent that I not make large calculations on the profit of their labor." Yet enslavers made optimistic calculations nonetheless, because, despite the real difficulty of learning, the amount of cotton that enslaved people picked increased dramatically over time. From 1805, when Charles Ball first dragged his cotton sack down a Congaree row, to 1860 in Mississippi, the amount of cotton the typical "hand" harvested during a typical day increased three, four, six, or even more times over. In 1801, 28 pounds per day, per picker, was the average from several South Carolina labor camps. By 1818, enslaved people on James Magruder's Mississippi labor camp picked between 50 and 80 pounds per day. A decade later, in Alabama, the totals on one plantation ranged up to 132 pounds, and by the 1840s, on a Mississippi labor camp, the hands averaged 341 pounds each on a good day—"the largest that I have ever heard of," the overseer wrote. In the next decade, averages climbed even higher. A study of planter account books that record daily picking totals for individual enslaved people on labor camps across the South found a growth in daily picking totals of 2.1 percent per year. The increase was even higher if one looks at the growth in the newer southwestern areas in 1860, where the efficiency of picking grew by 2.6 percent per year from 1811 to 1860, for a total productivity increase of 361 percent (see Figure 4.1).[30]

Almost as remarkable as this dramatic rise in productivity is the fact that the history of the modern world, of industrialization and great divergences

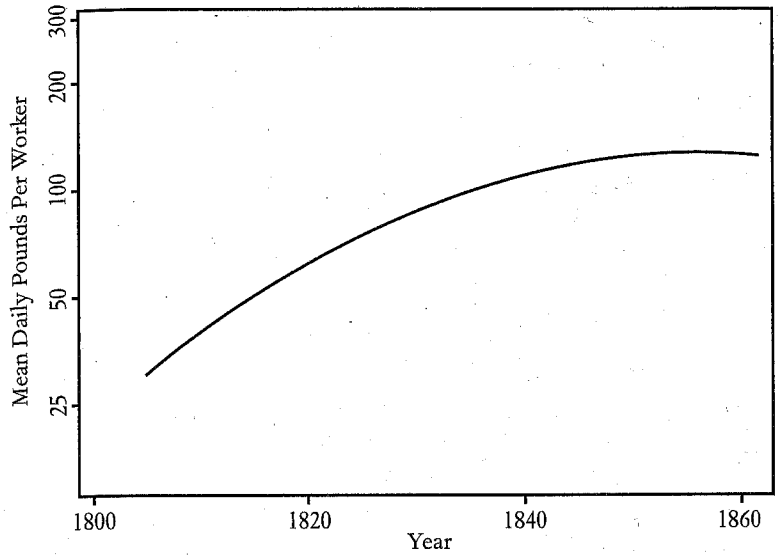

Figure 4.1. Increase in Picking Productivity Over Time
Source: Alan L. Olmstead and Paul W. Rhode, "Biological Innovation and Productivity Growth," NBER Working Paper No. 14142, National Bureau of Economic Research, June 2008.

of escape from the Malthusian trap, has almost never noticed it. Or perhaps that should be no surprise. This increase confounds our expectation that dramatic, systematic gains in labor efficiency depend on new machine technologies, such as the continuous series of innovations in spinning and weaving machines that were increasing the productivity of Manchester's textile workers. Some of the climb in cotton-picking efficiency may be attributable to a kind of "bioengineering"—new breeds of cotton, especially the "Petit Gulf" seed introduced from Mexico in the 1820s. Yet if heavy-yield and bigger cotton bolls of these breeds made picking individual bolls easier, the richer yield also meant more reaching and bending and moving and grabbing and lifting and carrying. And more expectations.[31]

Anyway, picking totals rose continuously. They rose before Petit Gulf. They rose after it. Moreover, while some planters obsessively chased the latest fad for cotton-seed varieties (they were marketed with names like "Mastodon," "100 Seed," "Sugar Loaf," and "Prolific"), others argued that new breeds added nothing to the "picking qualities" of Petit Gulf. So something that cannot be explained by the seeds happened to produce a continuous increase in productivity. That increase had huge consequences for global history. Cotton, like oil later on, was the world's most widely traded

commodity, but that analogy doesn't even begin to explain how crucial the ever-growing efficiency of cotton-picking was to the modernizing world economy. Neither Britain nor any other country that followed it down the path of textile-based industrialization could have accomplished an economic transformation without the millions of acres of cotton fields of the expanding American South. To replace the fiber it imported from American slave labor camps with an equivalent amount of wool, Britain in 1830 would have had to devote 23 million acres to sheep pasture—more than the sum total of the island's agricultural land.[32]

The expanding cotton plantations of America's southwestern region allowed the textile industries to escape Malthusian constraints, and not just by adding additional acres and laborers. Consider this: The total gain in productivity per picker from 1800 to 1860 was almost 400 percent. And from 1819 to 1860, the increase in the efficiency of workers who tended spinning machines in Manchester cotton mills was about 400 percent. Meanwhile, the efficiency of workers in weaving mills improved by 600 to 1,000 percent (see Table 4.4). Therefore, even as textile factories harnessed increasingly complex machinery to more powerful non-human energy sources, even moving from water to steam power, cotton pickers produced gains in productivity similar to those of cotton factories. And those gains created a huge pie, from which many other people around the world took a slice. Lower real cotton prices passed on gains in the form of capital reinvested in more efficient factory equipment, higher wages for the new industrial working class, and revenue for factory owners, enslavers, and governments. Cheaper cotton meant cheaper cloth and clothing. Thus productivity gains in cotton fields also translated into benefits for consumers of cloth. Most of the world eventually acquired clothes made in the industrial West from cotton picked in the US South.[33]

There would be no mechanical cotton picker until the late 1930s. In fact, between 1790 and 1860, there was no mechanical innovation of any kind to speed up the harvesting of cotton. There was nothing like the change from scythe to mechanical reaper, for instance, that by the 1850s began to reshape the Chesapeake wheat fields Ball had left behind. Even slave-operated Louisiana sugar mills were more factory-like than the cotton labor camps were. And the nature of human bodies, the only "machine" that worked in the cotton fields, did not change between 1805 and 1860. Still, the possibility that enslaved people might have picked more cotton because they picked faster, harder, and with more efficient technique does not come readily to our minds. In fact, during the late antebellum years, northern travelers insisted that slave

TABLE 4.4. COTTON-PICKING PRODUCTIVITY AND BRITISH COTTON TEXTILE–MAKING PRODUCTIVITY OVER TIME

YEAR	COTTON-PICKING INDEX (1820 = 100)	SPINNING PRODUCTIVITY INDEX (1820 = 100)	WEAVING PRODUCTIVITY INDEX (1820 = 100)	COTTON IMPORTED BY THE UK (MILLION £)	INDEX OF REAL PRICE OF RAW COTTON (1820 = 100)	VALUE OF BRITISH COTTON TEXTILE EXPORTS (MILLION £)
1790	54	—	—	2.57	191	2.1
1800	66	—	—	4.20	172	9.65
1810	81	—	—	4.77	100	17.4
1820	100	100	100	7.27	100	17.9
1830	123	159	161	7.08	60	19.7
1845	168	284	514	11.79	47	25.8
1850	187	318	756	19.63	58	30.4
1860	230	379	994	34.60	48	49.0

Sources: Cotton-picking index derived from Alan L. Olmstead and Paul W. Rhode, "Biological Innovation and Productivity Growth," NBER Working Paper No. 14142, National Bureau of Economic Research, June 2008, www.nber.org/papers/w14142, accessed January 8, 2014, using mean annual increase of 2.1 percent. Spinning and weaving indexes derived from D. A. Farnie, *The English Cotton Industry and the World Market, 1815–1896* (Oxford, 1979), 199. Figures for 1790 through 1810 are unknown. Value of exports is derived as midpoint of decade values from Ralph Davis, *The Industrial Revolution and British Overseas Trade* (Leicester, UK, 1979), 15. Davis's figures are averages for three-year sets, such as 1784–1786, 1794–1796, etc. While not precisely accurate for this specific year, this does map trends with accuracy.

labor was less efficient than free labor, a point of dogma that most historians and economists have accepted.[34]

The same northern observers who proclaimed that slave labor was inefficient had great faith in the idea that free people who were motivated by a cash wage would work harder and smarter than coerced workers. Occasionally, under special circumstances, some enslavers did pay people a wage. In 1828, Edward Barnes paid eight of the twenty-seven people enslaved on his Mississippi cotton labor camp a total of $28.32 for picking on Sundays, the day of the week when it was technically illegal for enslavers to force field labor. These positive incentives, however, accounted for only 3 to 5 percent of the raw cotton that Barnes's hands harvested in 1828, a year in which he sold eighty-one bales. In fact, enslavers typically only paid for Sunday picking, if they ever used wages. Most enslavers never used positive incentives at all. And perhaps most conclusively, after the Civil War, when many cotton planters would pay pickers by the pound at the end of a day's work, free labor

Image 4.2. Late in the year, the pickings grew slimmer. "Picking Cotton Near Montgomery, Alabama," J. H. Lakin, 1860s. Library of Congress.

motivated by a wage did not produce the same amount of cotton per hour of picking as slave labor had.[35]

What enslavers used was a system of measurement and negative incentives. Actually, one should avoid such euphemisms. Enslavers used measurement to calibrate torture in order to force cotton pickers to figure out how to increase their own productivity and thus push through the picking bottleneck. The continuous process of innovation thus generated was the ultimate cause of the massive increase in the production of high-quality, cheap cotton: an absolutely necessary increase if the Western world was to burst out of the 10,000-year Malthusian cycle of agriculture. This system confounds our expectations, because, like abolitionists, we want to believe that the free labor system is not only more moral than systems of coercion, but more efficient. Faith in that a priori is very useful. It means we never have to resolve existential contradictions between productivity and freedom. And slave labor surely was wasteful and unproductive. Its captives knew it wasted the days and years and centuries extorted from them. They would never get those

days back. Yet those who actually endured those days knew the secret that, over time, drove cotton-picking to continually higher levels of efficiency.

BY THE EVENING OF his first long day of picking cotton in the Congaree field, Charles Ball hadn't discovered the secret. Not yet. His hands had struggled and shuffled against each other as he observed his fellow slaves moving as frantically as if some demon pursued them. As afternoon moved toward evening, the sun finally neared the western trees. The toiling bodies hunched across the fields, heads bowed, arms moving back and forth between branch and bag, legs shuffling forward down the row. The only sound was the occasional hoarse cry of "Water, water!" Children ran back and forth, buckets resting on their heads where within a few weeks a circle of hair would wear off in a ring, visible until February.[36]

Dusk now settled, achingly slow, over the field's white glow. At last, tired eyes could not tell boll from leaf. The overseer grunted. Men, women, and children straightened their stiff backs. They trudged to the ends of their rows, emptied their last sackfuls into their cotton baskets, and hefted the wicker containers onto their heads—Ball, too. He arched his tired spine to bear the weight and began swaying slowly back toward the open shed that held the cotton. A long half-mile later, the final drops of sweat squeezed out of pores, lining tracks in the dust that caked the pickers' bodies. The outbuildings of the camp loomed up from the now-full dark.

Another day was almost done. Ball had almost survived it. But now, in the yard in front of the cotton-shed, he would learn the secret that made hands pick cotton like machines.

In a semicircle outside the "stand," the open shed that sheltered the gin, Ball and the others put their baskets down. They waited while drivers hung each basket by its handles on a "steelyard," a balance-beam scale that measured their day's picking. The overseer called out the weight and then chalked the numbers by the picker's name on his slate. Ball had thirty-eight pounds—at least ten less than most of the other men, even though they were not as strong with the axe or as swift with the hoe. Yet some, and some women and teenagers who had also picked more than Ball, were being taken to the patch of ground where Lydia had been beaten.[37]

Twenty years after Ball's first day of picking, Israel Campbell went through his own first season at a Mississippi slave labor camp. Try as he might, Campbell could pick no more than ninety pounds between first light and full dark. But the planter, "Belfer," had told the young man that his daily minimum was one hundred pounds—and that on this day he would "have

Image 4.3. Carrying the cotton from the fields to the gin stand for the weigh-in, at the end of the day. *Harper's New Monthly Magazine,* March 1854, p. 457.

as many lashes as there were pounds short" in the "draft of cotton" recorded beside the name "Israel" on the Irish-born overseer's slate. (A "draft" was a check that paid off a debt, in the commercial lingo of the time.) On the hard-packed earth of Belfer's cotton yard, between the rough-hewn timbers of the gin stand and the packing screw that squashed cleaned cotton into bales, a kind of accounting took place. It used slate and chalk, balance beam, and one more tool as well. And as Campbell brought his cotton up in the growing darkness, he knew that his weight left him with a negative balance. Desperate to avoid a reckoning, he set his basket down and silently slipped behind the other slaves lining up outside the circle of torchlight where the Irishman was weighing baskets. He went to hide in the hut where the slaves did their cooking. But just a few moments later, the door opened, and looming backlit on the threshold stood Belfer—lantern in one hand, four stakes and the bullwhip in the other: "Well, Israel, is that you?" The Irishman had weighed Campbell's basket. The account was negative. "I will settle with you now," Belfer said.[38]

We can find this system of accounting, experienced by Campbell and Ball, reported again and again by people who were moved to the southwestern

cotton fields. Southern whites themselves sometimes admitted that enslavers used the vocabulary of credit and debit accounting to frame weighing and whipping—like this Natchez doctor, who in 1835 described the end of a picking day: "The overseer meets all hands at the scales, with the lamp, scales, and whip. Each basket is carefully weighed, and the nett weight of cotton set down upon the slate, opposite the name of the picker. . . . [O]ccasionally the countenance of an idler may be seen to fall": "So many pounds short, cries the overseer, and takes up his whip, exclaiming, 'Step this way, you damn lazy scoundrel,' or 'Short pounds, you bitch.'"[39]

Charles Ball's first-day total on his slate became the new minimum on his personal account. He understood that if he failed on the next day to pick at least his minimum, thirty-eight pounds, "it would go hard with me. . . . I knew that the lash of the overseer would become familiar with my back." In contrast to the task system of the South Carolina rice swamps, on the cotton frontier, each person was given a unique, individual quota, rather than a limit of work fixed by general custom. The overseer, wrote one owner in the rules he created for his Louisiana labor camp in 1820, "shall see that the people of the plantation that are fit to pick cotton shall do it and to Pick clean as much as possible and a quantity conforming [to] their age[,] Strength & Capacitys."

Sarah Wells remembered that near Warren County, Mississippi, where she grew up, some slaves picked 100 pounds a day, some 300, and some 500. But if your quota was 250 pounds, and one day you didn't reach it, "they'd punish you, put you in the stocks," and beat you. If a new hand couldn't meet the set quota, that hand would have to improve his or her "capacity for picking," or the whip would balance the account. "You are mistaken when you say your negroes are ignorant of the proper way of working," wrote Robert Beverley about a new crew transported from Virginia to Alabama. "They only require to be made to do it . . . by flogging and that quite often." A few years later, having received another batch of people, he wrote, "They are very difficult negroes to make pick cotton. I have flogged this day, you would think if you had seen it[,] without mercy."[40]

Learning how to meet one's quota was difficult, and those who met it before sunset still had to keep picking. As William Anderson moved toward his quota in a Mississippi field, his new enslaver repeatedly knocked him down with a heavy stick, claiming William was lagging. In Alabama in the 1820s, "Old Major Billy Watkins" would "stand at his house, and watch the slaves picking cotton; and if any of them straitened their backs for a moment, his savage yell would ring, 'bend your backs.'" In 1829, also in Alabama, Henry

Gowens saw an overseer force slow women to kneel in front of their cotton baskets. Shoving their heads into the cotton, he would pull up their dresses and beat them until blood ran down their legs.

Women were disproportionately targeted. Enslavers who were obsessed with getting crops to market were not interested in hearing about recovery from childbirth or gynecological problems. "To make money men are required[,] or boys large enough," wrote one frustrated enslaver, and another, "[Because] we have not a pregnant woman on the plantation[,] the females are the better pickers and have saved much the larger portion of the crop." Women nursing babies in the shade where they had been laid, or toddlers among the cotton plants—all could become flashpoints for white fury. "Gross has killed Sook's youngest child," wrote a white woman to her slave-trader cousin. "He took the child out to work (it was between one year and eighteen months old) & because it would not do its work to please him he first whipt it & then held its head in the [creek] branch to make it hush crying."[41]

So, afraid of what lurked behind their bent backs, afraid of the scale and slate that lay before them, enslaved people kept picking till the end of the day. When the weighing and account-balancing by whipping was done for the evening, they tried to salve their wounds. Yet as they slept, the enslaver sat in his house. By the light of a candle, he transferred chalk totals into the more lasting ink and paper of a ledger. Then he erased the slate. And then, he wrote down new and higher minimums. After Israel Campbell figured out how to meet his quota, Belfer raised Campbell's requirement to 175 pounds per day. John Brown remembered that "as I picked so well at first, more was exacted of me, and if I flagged a minute the whip was applied liberally to keep me up to my mark. By being driven in this way, I at last got to pick a hundred and sixty pounds a day," after starting at a minimum requirement of 100.[42]

Cotton-picking increased because quotas rose. In 1805, Wade Hampton and his henchmen gradually increased their demands on Ball until he was picking 50-odd pounds a day. By the late 1820s, enslavers in Mississippi and Tennessee demanded 100 pounds. Five years later, that total had gone up another 30 pounds. Hands now moved "like a bresh heap afire"—"as if," a Mississippi planter wrote, "some new motive power was applied in the process." As if, in other words, mechanical engines hummed inside the enslaved, as if the disembodied hands of whites' language moved by themselves over the cotton plants in the field. By the 1850s, ex-slaves reported, enslavers demanded 200 pounds or more of most slaves on some places, and even 250 on others.[43]

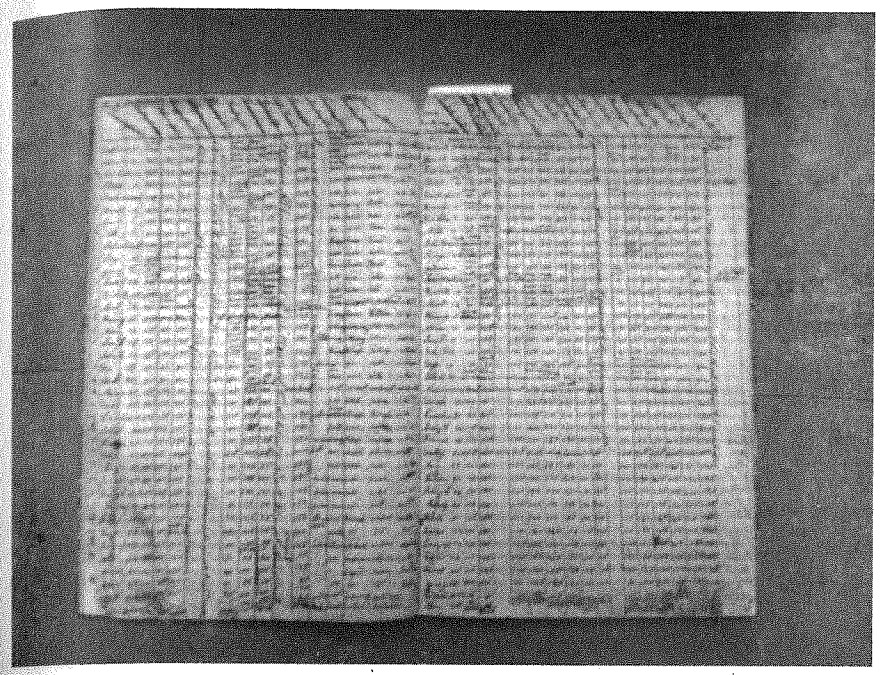

Image 4.4. Enslavers used cotton-picking records to measure and record each enslaved person's output. Such ledgers served, along with the scale and the whip, as key parts of the "whipping-machine" system that raised cotton output steadily over time. Here we have two pages of the picking record used in 1852 on the Laurel slave labor camp in Warren County, Mississippi, owned by R. C. Ballard. R. C. Ballard Papers, Folder 447, University of North Carolina.

Thus enslavers extracted a massive rise in cotton productivity from the 1790s to 1860. While planter-entrepreneurs did not publish their method for making cotton-picking as efficient as possible in a textbook or an agricultural journal, they created practices, attitudes, and material goods—whips, slates, pens, paper, and the cotton plant itself—that made up the method's interlocking cogs. White overseers also played an important role, and not just as the ones who often put this system of violent labor rationalization into hour-by-hour practice. They probably invented many of the practices of accounting and torture as they carried their slates and bullwhips ever west and south. Eager to impress their employers, associating with each other, they, too, shared ideas and pushed their peers to conform to an ideal of absolute control over their captives through a commitment to violence. But whoever created the pushing system and the dynamically increasing picking quotas, they were

crucial to what one overseer called this "great revolution in the commerce and manufactures of nations," the continuous increase in cotton productivity that shaped the nineteenth-century transformation of the world.[44]

In 1861, the basic mechanics of arms, backs, and fingers remained as they had been in 1805, when Charles Ball came to Congaree. They were unchanged from the time when human beings invented agriculture. Nor could enslaved people imagine, when they were confronted by ridiculously high quotas, how they would pay their debt from their hands and not their skins. Often, their first solution was to try to fool the weight and cheat the whip. They hid rocks, dirt, and pumpkins in their baskets in order to make them heavier. Sometimes it worked. Israel Campbell hid watermelons in his baskets to cover the ten pounds he could never quite make. He got away with it for a year. Another method took teamwork: distracting the overseer as he manned the scale, taking advantage of the darkness outside the circle of his lamp to swap a heavy basket for a light one. "Such tricks as these will be continually practiced upon an overseer who is careless or 'soft,'" wrote one planter.[45]

Overseers, however, were selected for their "hardness." If they caught enslaved people trying to short the scales on their daily cotton debt, the punishment was severe. Surveillance and physical intimidation in the fields also made it difficult for pickers to cheat the scale by loading in field rocks, or to run away before weighing time. Sometimes, fast workers tried to help slower ones by putting cotton in their baskets, or taking their rows for a while. But enslavers usually made rules against cooperation, and enforced them. Instead, as minimums increased for all over time, entrepreneurs and exploiters forced individual enslaved people to marshal the forces of their own creativity against their own long-term health and independence, and even against each other. So, fearing punishment or even death, minds scrambled to come up with ways to speed hands. And the dramatic increase over time in the quantity picked reveals that somehow they succeeded.[46]

But how? Look at enslavers' language. It assumed that some human beings could be reduced to appendages of others. Yet it also mirrored the words that formerly enslaved people used to describe the experience of picking cotton. For they remembered that to pick quickly enough to turn cotton entrepreneurs' calculations about profit into reality, one had to disembody oneself. Picking all day long until late at night, even by candlelight, they had to dissociate their minds from pain that racked stooping backs; from blood running down pricked fingertips; from hands that gnarled into claws over a few short years; from thirst, hunger, blurred vision, and anxiety about the whip behind and before them. One had to separate mind from hand—to become, for a time, little more than a hand. Or two hands, like novice picker Solomon Northup's neighbor Patsey. While Northup lurched down his row, "the long cumbersome sack" making "havoc with [cotton] branches," and groping single cotton bolls with both hands, Patsey worked both sides of her row in perpetual motion, right and left. She reached with one hand and dropped cotton in the bag hanging from her neck with the other, "lightning-quick motion was in her fingers as no other fingers possessed," Northup later wrote. She moved like a dancer in an unconscious rhythm, though of displacement rather than of pleasure.[47]

Patsey's hands—both of them, right and left—each did their own thinking, like those of a pianist. For most of the laborers, however, the left hand was a problem. Symmetry can be beautiful to witness. In tests, people seem consistently attracted to more symmetrical faces and bodies. But in fact human beings are in crucial ways asymmetrical. Nine out of ten of us prefer to use the right hand for most tasks. Virtually all of us prefer one hand over another. And we know now that the left side of the brain controls the right hand, and vice versa. The left side of the brain is more heavily involved in analytical, detailed, specific processes and thoughts. These include language, and they also include skilled work with the hands. The right is more responsible for "global" processes, such as general perceptions of the world. Many believe it to be more artistic, more emotional. Of course, the reality is slightly more complex than a simple right/left spatial separation inside the brain. Nor is the nature of asymmetry always the same: in some left-handers, language faculties are primarily based in the right side of the brain, rather than the left. But either way, different sections of the brain play specific and distinct roles, and specific parts of the brain are linked in different ways to our dominant and nondominant hands. Right and left hand, right and left brain are neither equal nor interchangeable. Our hands are crucial elements of how we are wired to the world and the brain and the mind and the self.[48]

Our strong hand, whether we are right- or left-handed, is the dexterous partner of our conscious, planning mind. We write, we touch, we gesture, we take more with one hand than the other. And we also work with one hand more than the other, and that hand links our work to the mind and the self, making them all one whole identity. In the skilled tasks that Charles Ball did back in Maryland, the right hand always led his body. Like a woodcarver or a blacksmith, a man like Charles Ball often identified himself with the day's work he could do with an axe (led by one hand) or the scythe (ditto.) So would a cook, or a housemaid. She, or he, was more than that work. But in

skilled labor in which one hand was the leader, the mind at work could sometimes express the self with mastery and joy—even if the work was forced and the product stolen.

On the cotton frontier, however, quotas kept rising. Now, there are switch-hitters in baseball, piano and guitar players with equally (though differently) skilled left and right hands. There are those who as a trick or because of an injury have learned to write with each hand. But these are specific skills, learned for the purpose of distinguishing and expressing the self. In reality, almost no one is truly ambidextrous. Enslaved people were only able to pick the required amount of cotton by learning how to unhook their nondominant hand from the tethers of bodily asymmetry and brain architecture that they had developed over the course of a lifetime. For eventually, only by using two hands that operated independently and simultaneously could they meet the rising quotas.

"Some hands can't get the sleight of it," said one white man, who had tried to whip a young woman to "make her a hand at cotton-picking." Enslavers and their victims sometimes described the skill of working with two hands that operated independently, with neither one dominant, as the "sleight" of picking cotton. The word means craft, cunning, the special knack or trick of something done too quickly for the eye to see. There is something left-handed about the word, something that is distinct from right-handed force. We think of sleight of hand as something employed by pickpockets, magicians, three-card monte dealers. But this sleight was different: extracted by power, it exposed and commodified hidden, individual skills. In the case of those who, like Patsey, developed the sleight of picking, what they achieved was not a mobilization of left-handed tricks to undermine right-handed power and entertain audiences, but a kind of detachment from their own consciousness. Patsey was beautiful as she moved, a sense that drips out of Northup's description of her performance between the rows. Yet her achievement was also a thing of horror; she was a person forced to toil in a hot field, but she was also one of the "hands" sketched in words written on paper by men sitting in cool, dark offices.[49]

Picking one cotton plant clean was much lighter work in terms of weight lifted or aerobic energy expended than cutting down a tree. Yet picking cotton was at the same time much harder labor than anything else enslaved people had to do. Here, for instance, is the rest of the story of the woman who didn't "get the sleight of it": "I whipped her, and if I did it once I did it five hundred times, but I found she *could* not; so I put her to carrying rails with the men. After a few days I found her shoulders were so *raw* that every rail

was *bloody* as she laid it down. I asked her if she would not rather pick cotton than carry rails. 'No,' said she, 'I don't get whipped now.'" Repetitiveness, and above all the demand that one become a different person—or not even a whole person, but a hand, and the wrong hand at that—these things made cotton-picking horrible. People remembered it as "irksome" and "fatiguing." "I was never thoroughly reconciled to it," they said, for it never felt like their own work or their own body.[50]

To alienate one's hands and rewire them for someone else was torment. Enslaved people, however, discovered how to do it. They had no choice. So they watched and talked to others, learning from their speed. They created, on their own, new efficiencies that shortened the path from plant to sack and back in space and time. And above all, they shut down pathways in the brain so that the body could dance like a Patsey, could become for a time the disembodied "hand" of enslavers' fantastic language. The whole effort left permanent scars. Years after she learned to pick cotton in Alabama in the 1850s, an elderly woman named Adeline still couldn't stand to watch clerks weighing the meat she bought at the grocery store: "Cause I remembers so well that each day that the slaves was given a certain number of pounds to pick. When weighing up time come and you didn't have the number of pounds set aside, you may be sure that you was going to be whipped."[51]

The threat of torture drove enslaved people to inflict this creation and destruction on themselves. Torture walked right behind them. But neither their contemporaries then nor historians since have used "torture" to describe the violence applied by enslavers. Some historians have called lashings "discipline," the term offered by slavery's lawgivers and the laws they wrote, which pretended that masters who whipped were calmly administering "punishment" to "correct" lazy subordinates' reluctance to work. Even white abolitionist critics of slavery and their heirs among the ranks of historians were reluctant to say that it was torture to beat a bound victim with a weapon until the victim bled profusely, did what was wanted, or both. Perhaps one unspoken reason why many have been so reluctant to apply the term "torture" to slavery is that even though they denied slavery's economic dynamism, they knew that slavery on the cotton frontier made a lot of product. No one was willing, in other words, to admit that they lived in an economy whose bottom gear was torture.[52]

Yet we should call torture by its name. Historians of torture have defined the term as extreme torment that is part of a judicial or inquisitorial process. The key feature that distinguishes it from mere sadistic behavior is supposedly that torture aims to extract "truth." But the scale and slate and lash

did, in fact, continually extract a truth: the maximum poundage that a man, woman, or child could pick. Once the victim surrendered that fact—opened up his or her left hand and revealed it, as it were—the torturer then challenged the enslaved person's reason once again, to force the creation of an even greater capacity to pick.[53]

Enslavers used torture to exert continuous pressure on all hands to find ways to split the self and become disembodied as a left hand at work. This was why many planters and overseers whipped even—or perhaps especially—their fastest pickers. In 1840–1841, Bennett Barrow, owner of a slave labor camp in West Feliciana Parish, Louisiana, kept a journal that he called his "Record of Punishment." In this ledger, which records both whipping and picking, Barrow revealed how he calibrated torture. Three-quarters of the 1840–1841 instances of torture were directed at those who did not meet their weight. Sometimes he focused on those who failed to meet a relatively low quota, as he did on the October day when he directed a "whipping frollick." He "whiped 8 or 10 for weight to day—those that pick least weights." But he actually beat the most productive cotton pickers more frequently than he did the least productive ones. He tortured his fastest male picker twice, and his three fastest women nine times between them, just as Edwin Epps beat Solomon Northup's friend Patsey until "her back bore the scars of a thousand stripes." This was how clever entrepreneurs extorted new efficiencies that they themselves could not imagine. They pressed their most skillful hands and contriving minds ever harder.[54]

Using torture, slavery's entrepreneurs extracted an amount of innovation virtually equal in numerical measure to all the mechanical ingenuity in all the textile mills in the Western world. The enslavers' choice was a rational one, if that which increases profitability and productivity is by definition rational. On the cotton frontier, Charles Ball said, torture was "practised with . . . order, regularity, and system" designed to convert "insufficient" production into sufficient production—sufficient, that is, until the next day, when it would be repeated. Henry Bibb's owner said "that he was no better pleased than when he could hear . . . the sound of the driver's lash among the toiling slaves," for then he knew that his system was working.[55]

Of course, not all of the benefits of torture for profit appeared in black and red ink. Some enslavers beat captives who lied, and then again, as one formerly enslaved person said, "when you tell them the truth, they whip you to make [you] lie." They beat captives who resisted. They beat those who did not. Enslavers beat the enslaved to assuage jealousy—yes, jealousy of a field hand who had to pick three hundred pounds a day. Edwin Epps envied the narrow

transcendence of his power that Patsey's unconscious grace in the field revealed. Beyond the body he raped, the womb whose children he could sell, the back he flayed, there was part of her that danced, and he hated it. Meanwhile, "Captain Davis," the father of James Fisher's Alabama owner, carried a whip he named "The Negro Ruler." Making it a point to "conquer or kill every one he undertook to flog," he beat one man until brain damage prevented the victim from walking. He was eager to beat Fisher, too, but James managed to run away before the white woman consented to let her father do so.[56]

For many southwestern whites, whipping was a gateway form of violence that led to bizarrely creative levels of sadism. In the sources that document the expansion of cotton production, you can find at one point or another almost every product sold in New Orleans stores converted into an instrument of torture: carpenters' tools, chains, cotton presses, hackles, handsaws, hoe handles, irons for branding livestock, nails, pokers, smoothing irons, singletrees, steelyards, tongs. Every modern method of torture was used at one time or another: sexual humiliation, mutilation, electric shocks, solitary confinement in "stress positions," burning, even waterboarding. And descriptions of runaways posted by enslavers were festooned with descriptions of scars, burns, mutilations, brands, and wounds. Yet even slave owners' more "irrational" forms of torture could have "rational" outcomes. As ex-slave Henry Gowens pointed out, wild assaults "cramp[ed] down [the] minds" of their targets (if they survived) and other witnesses, who now acted as much like hands as they could.[57]

We don't usually see torture as a factor of production. Economics teachers don't put it on the chalkboard as a variable in a graph ("T" stands for torture, one component of "S," or supply). But here is something that may help reveal how crucial systematized torture was to the industrial revolution, and thus to the birth of the modern world. It's a metaphor offered by a man named Henry Clay, after the architect of the "American system." Born into slavery in the Carolinas, moved west as a boy, Clay recalled after slavery ended that his Louisiana owner had once possessed a machine which by his account made cotton cultivation and harvesting mechanical, rapid, and efficient. This contraption was "a big wooden wheel with a treadle to it, and when you tromp the treadle the big wheel go round. On that wheel was four or five leather straps with holes cut in them to make blisters, and you lay the negro down on his face on a bench and tie him to it." When the operator pumped the treadle to turn the wheel, the straps thrashed the back of the man or woman tied to the bench into blistered, bloody jelly. According to Clay, the mere threat of this whipping-machine was enough to speed his own hands.[58]

The contraption may have actually existed. More likely, however, the whipping-machine was not a material thing of wood and leather but a telling tale. Clay was using a metaphorical argument to say that every cotton labor camp carved out of the southwestern woods used torture as its central technology. Every single day, calibrated pain, regular as a turning gear, challenged enslaved people to exceed the previous day's gains in production. Planters and entrepreneurs rarely talked about how other human beings actually picked cotton, but they didn't need to. They had only to deploy and tune the technology of the whip, steelyard, and slate in order to force people to focus their minds on inventing new ways to perform repetitive and mind-numbing labor at nearly impossible speed. Fingertips hardened, but also became more subtle and swift. Enslaved people developed different tricks, ways to get down the row with as little wasted movement as possible. Some of the new discoveries they could teach to each other, but ultimately one also had to split one's own consciousness in half in order to generate unseen creativities of movement, new graces of speed.

Thus torture compelled and then exposed left-handed capacities, subordinated them to the power of the enslaver, turned them against people themselves. And thus untold amounts of mental labor, unknown breakthroughs of human creativity, were the keys to an astonishing increase in cotton production that required no machinery—save the whipping-machine, of course. With it, enslavers looted the riches of black folk's minds, stole days and months and years and lifetimes, turned sweat, blood, and flesh into gold. They forced people to behave in the fields as if they themselves were disembodied, mechanical hands that moved ever more swiftly over the cotton plant at the wave of the enslaver's hand. Enslavers forced the sleight of the left hand to yield to the service of their own right-handed power.

It was true that when entrepreneurs made plans, their desires sometimes ran away with them, and they counted on grandiose futures that might never come to pass. They looked at people with heads and arms and legs and could not "see anything but cotton bales," ex-slaves said. Mississippi enslaver Daniel Jordan, for example, made the wild prediction in 1833 that he would get "ten bales to the hand," speaking as if the people who picked his cotton were bizarrely disembodied "hands." Yet some of these plans did come to pass. The whipping-machine that enslavers built in the southwestern slave labor camps enabled them to reshape the world along the lines of their own fanciful calculations of people into hands, hands into bales, bales into money, money into hands again. Hard forced labor multiplied US cotton production to 130 times its 1800 level by 1860. Slave labor camps were more efficient producers of revenue than free farms in the North. Planter-entrepreneurs

conquered a subcontinent in a lifetime, created from nothing the most significant staple-commodity stream in the world economy. They became the richest class of white people in the United States, and perhaps the world.[59]

ON THAT FIRST 1805 evening, Charles Ball still stood uncertainly outside the lantern-light's circle. The overseer had called out his thirty-eight pounds of cotton and warned him about the second day's number. The drivers took several others off to the side. Ball "stood by, with feelings of despondence and terror, whilst the other people were getting their cotton weighed." But when the overseer walked over to where Ball stood, he simply examined Ball's hands and then said, "You have a pair of good hands—you will make a good picker." This was both reassurance and threat. Your hands, he was telling Ball, will allow you to become a hand. We will make you make yourself into a good picker.

In the days that followed, Ball pushed himself frantically, willing his hands to move faster. After a couple of weeks he had reached an average level. The next day he increased his total by a few pounds, and then the white men who drove and measured him established a new, higher minimum. But Ball never excelled. He complained that he "was hardly regarded as a *prime hand*." In Maryland, though he was not free, Ball had taken pride in the good things his brain and body could do together. They made him a man, in his view, and an individual as well. They brought him a family. In South Carolina, he was never comfortable with the way cotton-picking required him to subordinate his inventive mind, and his muscles that were the product of ten thousand hours of hard labor, to the endless repetition of his hands. And it brought him nothing but an unwhipped back for one more day.[60]

The left-handed innovations that Ball had to surrender, imposing self-torture to avoid that done by others, was in 1805 a future through which millions of people would be compelled to pass. The woods that shadowed Ball at the end of the day stretched a thousand miles away west, finally running out in central Texas. Everything in between, and even beyond, was potentially cotton land. For the next half-century new fields ran west and south like wildfire from the Congaree, changing the world—one tree cut down, one field plowed, one bag picked at a time. Slave labor camps spread more quickly than any agricultural frontier had expanded in human history. Felled logs smoldered in countless new grounds. Fields widened. The processes of hand-making churned in a vast and ever-widening and thickening circle.

By the time William from Baltimore came to James Stille's place, which just happened to be right across the Mississippi River from Wade Hampton's new Louisiana slave labor camp, everything Charles Ball had to produce in

South Carolina had raised the ante for what William would have to do. A few months after his sale, William woke up and found that he, too, would have to make his hands learn to pick cotton. Of course, learning how to meet the daily demands of the overseers was measurably harder in 1819 than it had been in 1805.

Yet "hands" were not only white entrepreneurs' disembodied appendages. James Stille had bought men who had been transformed into commodities. He drove them hard, and by the beginning of August 1819, they had their first taste of cotton-picking and, no doubt, the brutality of the southwestern "negro whip." A few days into the picking season, however, four of Stille's "hands" crossed the river and went south fifty miles into the German Coast's sugar country. At William McCutcheon's slave labor camp—the same camp that in 1811 had been the source of many rebels—they tried to break into the storeroom. McCutcheon heard a noise, came out, and surprised the escaped captives. Two pointed guns at him. From five yards away, they snapped their triggers. But the powder was wet. The guns misfired, and McCutcheon sounded the alarm. Enslavers soon captured two of the runaways and killed a third. The fourth escaped into the tall August sugarcane.[61]

The whip drove men and women to turn all of their bodies and much of their minds to the task of picking faster and faster. But gang labor could never occupy every corner of every person's brain. There was always nighttime. So Charles Ball walked back to the small village of huts where the exhausted and bruised people among whom he had found himself were trying to survive. And a man—for all we know, Rachel's shipmate William—crouched in McCutcheon's cane field, trying to still his wildly thumping heart lest his pursuers hear.

5

TONGUES

1819–1824

SHE HAD COME FROM far away. Her journey down from Kentucky, all the tears she had cried when Robert Dickey bought her and left her mother at New Orleans—they had drained her. Now she was dead. But her body could not settle into death on a cooling board, couldn't take the slow bumpy ride on the mule cart. Instead, morning after Louisiana morning, her body shuffled into a sea of cotton. Her hoe rose and fell, rose and fell with the others. The sun that beat on her was gray, not gold, though the sky burned white-hot at three in the afternoon. Dust coated her legs and arms until they looked as gray as the underworld that her vacant stare took in. Water from the dipper scratched her tongue like sand. Her corpse grew thinner. Men tried to speak to her. Their voices sounded far away, as if she lay at the bottom of the sea. Their faces shimmered over a surface she could not breach. Some looked kind; some greedy for a new woman; some waiting to see if she would gasp for help. But her dry tongue clove to the roof of her mouth.[1]

Wordless haunts like her wandered the landscape of slavery's southwestern frontier. They hid in abandoned corncribs, waited at crossroads, chased children from places where blood had spilled. They were girls who killed themselves after being beaten for leaving the onions out of the stew. They were men who disappeared after the master caught them praying that slavery would end. Slaves born in Africa told others that if you died outside God's presence, perhaps because you were the victim of violence so horrifying that even a deity couldn't bear to watch, half of your spirit might remain behind—wandering the crime site, thirsty for peace.[2]

Soon she would be another wisp on the night breeze. But as long as her working body inched up one furrow after another, she was also another story of the undead. Before the Haitian Revolution, Africans toiling in the sugar