

a
o
i
e
p
a
t
d
c
c
d
a
b
r
i
F
c

Relations Between Capital and Labor

- How did the Industrial Revolution affect people of all social classes, and what measures were taken to improve the conditions of workers?

In Britain, industrial development brought new social relations and intensified long-standing problems between capital and labor. A new group of factory owners and industrial capitalists arose. These men and women and their families strengthened the wealth and size of the middle class, which had previously been made up mainly of merchants and professional people. The demands of modern industry also created a much larger group, the factory workers.

The growth of new occupational groups in industry stimulated thinking about social relations. Often combined with reflections on the French Revolution, this thinking led to the development of a new overarching interpretation — a new paradigm — regarding social relationships. Briefly, this paradigm argued, with considerable success, that individuals were members of economically determined classes that had conflicting interests. Accordingly, the comfortable, well-educated “public” of the eighteenth century came increasingly to see itself as the middle class, and the “people” gradually transformed themselves into the modern working class. And if the new class interpretation was more of a deceptive simplification than a fundamental truth for some critics, it appealed to many because it seemed to explain what was happening. Therefore, conflicting classes existed, in part, because many individuals came to believe they existed and developed an appropriate sense of class feeling — what Marxists call **class-consciousness** (see page 721).

The New Class of Factory Owners

Early industrialists operated in a highly competitive economic system. As the careers of Watt and Harkort illustrate, there were countless production problems, and success and large profits were by no means certain. Manufacturers therefore waged a constant battle to cut their production costs and stay afloat. Much of the profit had to go back into the business for new and better machinery.

Most early industrialists drew upon their families and friends for labor and capital, but they came from a variety of backgrounds. Many, such as Harkort, were from well-established merchant families with rich networks of contacts and support. Others, such as Watt, Wedgwood, and Cockerill, were of modest means, especially in the early days. Artisans and skilled workers of exceptional ability had unparalleled opportunities. Members of ethnic and religious groups who had been discriminated against in the traditional occupations controlled by the landed aristocracy jumped at the new chances and often helped each other. Scots, Quakers, and other Protestant dissenters were tremendously important in Britain; Protestants and Jews dominated banking in Catholic France.

As factories and firms grew larger, opportunities declined, at least in well-developed industries. It became considerably harder for a gifted but poor young mechanic to start a small enterprise and end up as a wealthy manufacturer. Formal education became more important for young men as a means of success and advancement, and formal education at the advanced level was expensive. In Britain by 1830 and in France and Germany by 1860, leading industrialists were more likely to have inherited their well-established enterprises, and they were financially much more secure than their struggling parents had been. They also had a greater sense of class-consciousness; they were fully aware that ongoing industrial development had widened the gap between themselves and their workers.

The wives and daughters of successful businessmen also found fewer opportunities for active participation in Europe’s business world. Rather than contributing as vital partners in a family-owned enterprise, as so many middle-class women had done, these women were increasingly valued for their ladylike gentility. By 1850 some influential women writers and most businessmen assumed that middle-class wives and daughters should steer clear of work in offices and factories. Rather, a middle-class lady should concentrate on her proper role as wife and mother, preferably in an elegant residential area far removed from ruthless commerce and the volatile working class.

• **class-consciousness** An individual’s sense of class differentiation.



▣ Picturing the Past

Ford Maddox Brown, *Work* This midcentury painting provides a rich and realistic visual representation of the new concepts of social class that became common by 1850. (Birmingham Museums and Art Gallery/ The Bridgeman Art Library)

ANALYZING THE IMAGE Describe the different types of work shown. What different social classes are depicted, and what kinds of work and leisure are the members of the different social classes engaged in?

CONNECTIONS What does this painting and its title suggest about the artist's opinion of the work of common laborers?

The New Factory Workers

The social consequences of the Industrial Revolution have long been hotly debated. The condition of British workers during the transformation has always generated the most controversy among historians because Britain was the first country to industrialize and because the social consequences seemed harshest there.

From the beginning, the Industrial Revolution in Britain had its critics. Among the first were the romantic poets. William Blake (1757–1827) called the early factories “satanic mills” and protested against the hard life of the London poor. William Wordsworth (1770–1850) lamented the destruction of the rural way of life and the pollution of the land and water. Some

handicraft workers—notably the **Luddites**, who attacked factories in northern England in 1812 and after—smashed the new machines, which they believed were putting them out of work. Doctors and reformers wrote of problems in the factories and new towns, while Malthus and Ricardo concluded that workers would earn only enough to stay alive.

This pessimistic view was accepted and reinforced by Friedrich Engels (1820–1895), the future revolutionary and colleague of Karl Marx. After studying conditions in northern England, this young middle-class German published in 1844 *The Condition of the Working Class in England*, a blistering indictment of the middle classes. “At the bar of world opinion,” he wrote, “I charge the English middle classes with mass murder, wholesale robbery, and all the other crimes in the

calendar.” The new poverty of industrial workers was worse than the old poverty of cottage workers and agricultural laborers, according to Engels. The culprit was industrial capitalism, with its relentless competition and constant technical change. Engels’s extremely influential charge of middle-class exploitation and increasing worker poverty was embellished by Marx and later socialists.

Meanwhile, other observers believed that conditions were improving for the working people. In 1835 in his study of the cotton industry, Andrew Ure wrote that conditions in most factories were not harsh and were even quite good. Edwin Chadwick, a government official well acquainted with the problems of the working population, concluded that the “whole mass of the laboring community” was increasingly able “to buy more of the necessities and minor luxuries of life.”⁶ Nevertheless, those who thought conditions were getting worse for working people were probably in the majority.

Historians’ studies of statistics from this period have weakened the idea that the condition of the working class got much worse with industrialization. But the most recent scholarship also confirms the view that the early years of the Industrial Revolution were hard ones for British workers. There was little or no increase in the purchasing power of the average British worker from about 1780 to about 1820. Only after 1820, and especially after 1840, did real wages rise substantially, so that the average worker earned and consumed roughly 50 percent more in real terms in 1850 than in 1770.⁷ In short, there was considerable economic improvement for workers throughout Great Britain by 1850, but that improvement was hard won and slow in coming.

This important conclusion must be qualified, however. First, the number of hours in the average workweek increased. Thus, to a large extent, workers earned more because they worked more. In England nonagricultural workers labored about 250 days per year in 1760 as compared to 300 days per year in 1830, while the normal workday remained an exhausting eleven hours throughout the entire period. In 1760 nonagricultural workers still observed many religious and public holidays by not working, and many workers took Monday off. These days of leisure and relaxation declined rapidly after 1760, and by 1830 nonagricultural workers had joined landless agricultural laborers in toiling six rather than five days a week.⁸

Second, the wartime decline in the average worker’s real wages and standard of living from 1792 to 1815 had a powerful negative impact on workers. These difficult war years, with more unemployment and sharply higher prices for bread, were formative years for the new factory labor force, and they colored the early experience of modern industrial life in somber tones.

Another way to consider the workers’ standard of living is to look at the goods that they purchased. Again

the evidence is somewhat contradictory. Speaking generally, workers ate somewhat more food of higher nutritional quality as the Industrial Revolution progressed. Diets became more varied; people ate more potatoes, dairy products, fruits, and vegetables. Clothing improved, but housing for working people probably deteriorated somewhat. In short, per capita use of specific goods supports the position that the standard of living of the working classes rose, at least moderately, after the long wars with France.

Work in Early Factories

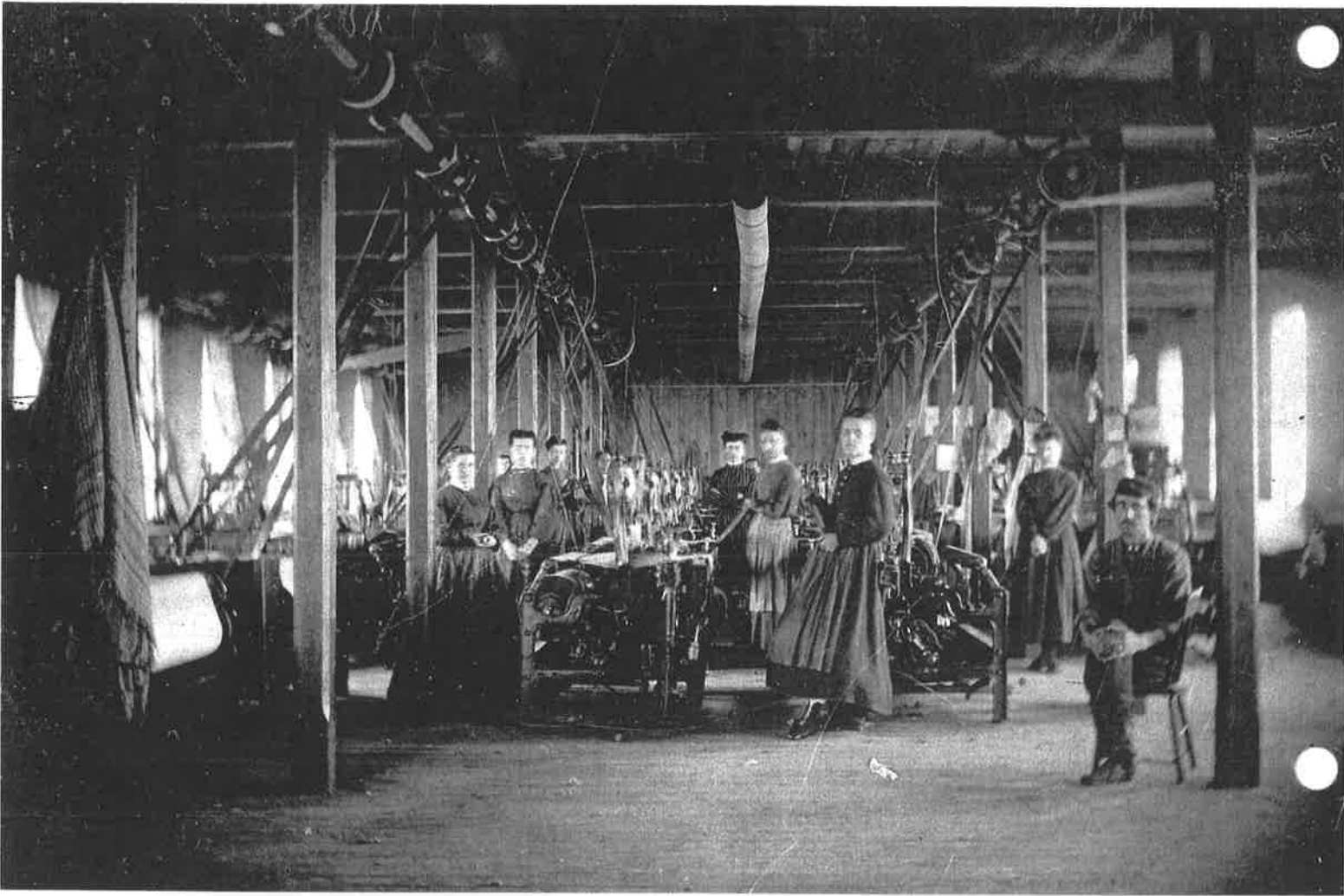
What about working conditions? Did workers eventually earn more only at the cost of working longer and harder? Were workers exploited harshly by the new factory owners?

The first factories were cotton mills, which began functioning in the 1770s along fast-running rivers and streams and were often located in sparsely populated areas. Cottage workers in the vicinity, accustomed to the putting-out system, were reluctant to work in the new factories even when they received relatively good wages because factory work was unappealing. In a factory, workers had to keep up with the machine and follow its relentless tempo. Moreover, they had to show up every day, on time, and work long, monotonous hours under the constant supervision of demanding overseers, and they were punished systematically if they broke the work rules. For example, if a worker was late to work, or accidentally spoiled material, or nodded off late in the day, the employer imposed fines that were deducted from the weekly pay. Children and adolescents were often beaten for their infractions.

Cottage workers were not used to that kind of life and discipline. All members of the family worked hard and long, but in spurts, setting their own pace. They could interrupt their work when they wanted to. Women and children could break up their long hours of spinning with other tasks. On Saturday afternoon the head of the family delivered the week’s work to the merchant manufacturer and got paid. Saturday night was a time of relaxation and drinking, especially for the men.

Also, early factories resembled English poorhouses, where totally destitute people went to live at public expense. Some poorhouses were industrial prisons, where the inmates had to work in order to receive their food and lodging. The similarity between large brick factories and large stone poorhouses increased the cottage workers’ fear of factories and their hatred of factory discipline. It was cottage workers’ reluctance to work in factories that prompted the early cotton mill owners

- **Luddites** Group of handicraft workers who attacked factories in northern England in 1812 and after, smashing the new machines that they believed were putting them out of work.



Workers at a U.S. Mill Female workers at a U.S. cotton mill in 1890 take a break from operating belt-driven weaving machines to pose for this photograph, accompanied by their male supervisor. The first textile mills, established in the 1820s in Massachusetts, employed local farm girls. As competition intensified, conditions deteriorated and the mills increasingly relied on immigrant women who had few alternatives to the long hours, noise, and dangers of factory work. By 1900, more than one million women worked in factories in the United States. (Courtesy of George Eastman House, International Museum of Photography and Film, GEH neg. 14250)

to turn to abandoned and pauper children for their labor. As we have seen, these owners contracted with local officials to employ large numbers of such children, who had no say in the matter. In the eighteenth century semi-forced child labor seemed necessary and was socially accepted. From our modern point of view, it was cruel exploitation and a blot on the record of the new industrial system.

Working Families and Children

By the 1790s the early pattern was rapidly changing. The use of pauper apprentices was in decline, and in 1802 it was forbidden by Parliament. Many more textile factories were being built, mainly in urban areas,

where they could use steam power rather than waterpower and attract a workforce more easily than in the countryside. As a result, people came from near and far to work in the cities, both as factory workers and as laborers, builders, and domestic servants. Yet as they took these new jobs, working people did not simply give in and accept the highly disciplined system of labor. Rather, they helped modify the system by carrying over old, familiar working traditions.

For one thing, workers often came to the mills and the mines as family units. This was how they had worked on farms and in the putting-out system. The mill or mine owner bargained with the head of the family and paid him or her for the work of the whole family. In the cotton mills, children worked for their mothers or fa-

thers, collecting scraps and “piecing” broken threads together. In the mines, children sorted coal and worked the ventilation equipment. Their mothers hauled coal in the tunnels below the surface, while their fathers hewed with pick and shovel at the face of the seam.

The preservation of the family as an economic unit in the factories from the 1790s on made the new surroundings more tolerable, both in Great Britain and in other countries, during the early stages of industrialization. Parents disciplined their children, making firm measures socially acceptable, and directed their upbringing. The presence of the whole family meant that children and adults worked the same long hours (twelve-hour shifts were normal in cotton mills in 1800). Adult workers were not particularly interested in limiting the minimum working age or hours of their children as long as family members worked side by side. Only when technical changes threatened to place control and discipline in the hands of impersonal managers and overseers did adult workers protest against inhuman conditions in the name of their children.

Some enlightened employers and social reformers in Parliament definitely felt otherwise. They argued that more humane standards were necessary, and they used widely circulated parliamentary reports to influence public opinion. For example, Robert Owen (1771–1858), a successful manufacturer in Scotland, testified in 1816 before an investigating committee on the basis of his experience. He argued that employing children under ten years of age as factory workers was “injurious to the children, and not beneficial to the proprietors.”⁹ Workers also provided graphic testimony at such hearings as the reformers pressed Parliament to pass corrective laws. They scored some important successes.

Their most significant early accomplishment was the **Factory Act of 1833**. It limited the factory workday of children between nine and thirteen to eight hours and that of adolescents between fourteen and eighteen to twelve hours. Children under nine were to be enrolled in the elementary schools that factory owners were required to establish. The employment of children declined rapidly. Thus the Factory Act broke the pattern of whole families working together in the factory because efficiency required standardized shifts for all workers.

Ties of blood and kinship were important in other ways in Great Britain in the formative years between about 1790 and 1840. Many manufacturers and builders hired workers through subcontractors. They paid the subcontractors on the basis of what the subcontractors and their crews produced. Subcontractors in turn hired and fired their own workers, many of whom were friends and relations. The subcontractor might be as harsh as the greediest capitalist, but the relationship between subcontractor and work crew was close

and personal. This kind of personal relationship had traditionally existed in cottage industry and in urban crafts, and it was more acceptable to many workers than impersonal factory discipline.

Ties of kinship were particularly important for newcomers, who often traveled great distances to find work. Many urban workers in Great Britain were from Ireland. Forced out of rural Ireland by population growth and deteriorating economic conditions from 1817 on, Irish in search of jobs took what they could get. As early as 1824 most of the workers in the Glasgow cotton mills were Irish; in 1851 one-sixth of the population of Liverpool was Irish. Like many other immigrant groups held together by ethnic and religious ties, the Irish worked together, formed their own neighborhoods, and not only survived but also thrived.

The Sexual Division of Labor

The era of the Industrial Revolution witnessed major changes in the sexual division of labor. In preindustrial Europe most people worked in family units. By tradition, certain jobs were defined by gender, but many tasks might go to either sex. Family employment carried over into early factories and subcontracting, but by the 1830s it was collapsing as child labor was restricted and new attitudes emerged. A different sexual division of labor gradually arose to take its place. By 1850 the man was emerging as the family’s primary wage earner, while the married woman found only limited job opportunities. Generally denied good jobs at high wages in the growing urban economy, women were expected to concentrate on housework, raising the children, and some craftwork at home.

This new pattern of **separate spheres** had several aspects. First, all studies agree that married women from the working classes were much less likely to work full-time for wages outside the house after the first child arrived, although they often earned small amounts doing putting-out handicrafts at home and taking in boarders. Second, when married women did work for wages outside the house, they usually came from the poorest families, where the husbands were poorly paid, sick, unemployed, or missing. Third, these poor married or widowed women were joined by legions of young unmarried women, who worked full-time but only in certain jobs, of which textile factory work, laundering, and domestic service were particularly important. Fourth, all women were generally confined to

- **Factory Act of 1833** English law that led to a sharp decline in the employment of children by limiting the hours that children over age nine could work and requiring younger children to attend factory-run elementary schools.
- **separate spheres** A gender division of labor with the wife at home as mother and homemaker and the husband as wage earner.

low-paying, dead-end jobs. Evolving gradually, but largely in place by 1850, the new sexual division of labor in Britain constituted a major development in the history of women and of the family. (See "Viewpoints: Women's Role in Industrialized Europe," page 706.)

If the reorganization of paid work along gender lines is widely recognized, there is no agreement on its causes. One school of scholars sees little connection with industrialization and finds the answer in the deeply ingrained sexist attitudes that predated the economic transformation. These scholars stress the role of male-dominated craft unions in denying working women access to good jobs and relegating them to unpaid housework. Other scholars, stressing that the gender roles of women and men can vary enormously with time and culture, look more to a combination of economic and biological factors in order to explain the emergence of a sex-segregated division of labor.

Three ideas stand out in this more recent interpretation. First, the new and unfamiliar discipline of the clock and the machine was especially hard on married women of the laboring classes. Above all, relentless factory discipline conflicted with child care in a way that labor on the farm or in the cottage had not. A woman operating earsplitting spinning machinery could mind a child of seven or eight working beside her (until such work was outlawed), but she could no longer pace herself through pregnancy or breast-feed her baby on the job. Thus a working-class woman had strong incentives to concentrate on child care within her home if her family could afford it.

Second, running a household in conditions of primitive urban poverty was an extremely demanding job in its own right. There were no supermarkets or public transportation. Shopping and feeding the family constituted a never-ending challenge. Taking on a brutal job outside the house — a "second shift" — had limited appeal for the average married woman from the working class. Thus many women might well have accepted the emerging division of labor as the best available strategy for family survival in the industrializing society.¹⁰

Third, why were the young, generally unmarried women who did work for wages outside the home segregated and confined to certain "women's jobs"? No doubt the desire of males to monopolize the best opportunities and hold women down provides part of the answer. Yet as some feminist scholars have argued, sex-segregated employment was also a collective response to the new industrial system. Previously, at least in theory, young people worked under a watchful parental eye. The growth of factories and mines brought unheard-of opportunities for girls and boys to mix on the job, free of familial supervision. Such opportunities led to more unplanned pregnancies and fueled the illegitimacy explosion that had begun in the late eigh-

teenth century and that gathered force until at least 1850. Thus segregation of jobs by gender was partly an effort by older people to help control the sexuality of working-class youths.

Investigations into the British coal industry before 1842 provide a graphic example of this concern. (See "Listening to the Past: The Testimony of Young Mine Workers," page 708.) The middle-class men leading the inquiry, who expected their daughters and wives to pursue ladylike activities, often failed to appreciate the physical effort of the girls and women who dragged with belt and chain the heavy carts of coal along narrow underground passages. But they professed horror at the sight of girls and women working without shirts, which was a common practice because of the heat, and they quickly assumed the prevalence of licentious sex with the male miners, who also wore very little clothing. In fact, most girls and married women worked for related males in a family unit that provided considerable protection and restraint. Yet many witnesses from the working class also believed that the mines were inappropriate and dangerous places for women and girls. Some miners stressed particularly the danger of sexual aggression for girls working past puberty. As one explained, "I consider it a scandal for girls to work in the pits. Till they are 12 or 14 they may work very well but after that it's an abomination. . . . The work of the pit does not hurt them, it is the effect on their morals that I complain of."¹¹ The **Mines Act of 1842** prohibited underground work for all women and girls as well as for boys under ten.

Some women who had to support themselves protested against being excluded from coal mining, which paid higher wages than most other jobs open to working-class women. But provided they were part of families that could manage economically, the girls and the women who had worked underground were generally pleased with the law. In explaining her satisfaction in 1844, one mother of four provided real insight into why many married working women accepted the emerging sexual division of labor:

While working in the pit I was worth to my [miner] husband seven shillings a week, out of which we had to pay 2½ shillings to a woman for looking after the younger children. I used to take them to her house at 4 o'clock in the morning, out of their own beds, to put them into hers. Then there was one shilling a week for washing; besides, there was mending to pay for, and other things. The house was not guided. The other children broke things; they did not go to school when they were sent; they would be playing about,

• **Mines Act of 1842** English law prohibiting underground work for all women and girls as well as for boys under ten.

Listening to the Past

The Testimony of Young Mine Workers

The use of child labor in British industrialization quickly attracted the attention of humanitarians and social reformers. This interest led to investigations by parliamentary commissions, which resulted in laws limiting the hours and the ages of children working in large factories. Designed to build a case for remedial legislation, parliamentary inquiries gave large numbers of workers a rare chance to speak directly to contemporaries and to historians.

The moving passages that follow are taken from testimony gathered in 1841 and 1842 by the Ashley Mines Commission. Interviewing employers and many male and female workers, the commissioners focused on the physical condition of the youth and on the sexual behavior of workers far underground. The subsequent Mines Act of 1842 sought to reduce immoral behavior and sexual bullying by prohibiting underground work for all women and girls (and for boys younger than ten).

Mr. Payne, Coal Master

That children are employed generally at nine years old in the coal pits and sometimes at eight. In fact, the smaller the vein of coal is in height, the younger and smaller are the children required; the work occupies from six to seven hours per day in the pits; they are not ill-used or worked beyond their strength; a good deal of depravity exists but they are certainly not worse in morals than in other branches of the Sheffield trade, but upon the whole superior; the morals of this district are materially improving. Mr. Bruce, the clergyman, has been zealous and active in endeavoring to ameliorate their moral and religious education. . . .

Ann Eggle, Hurrier, 18 Years Old

I'm sure I don't know how to spell my name. We go at four in the morning, and sometimes at half-past four. We begin to work as soon as we get down. We get out after four, sometimes at five, in the evening. We work the whole time except an hour

for dinner, and sometimes we haven't time to eat. I hurry [move coal wagons underground] by myself, and have done so for long. I know the corves [small coal wagons] are very heavy, they are the biggest corves anywhere about. The work is far too hard for me; the sweat runs off me all over sometimes. I am very tired at night. Sometimes when we get home at night we have not power to wash us, and then we go to bed. Sometimes we fall asleep in the chair. Father said last night it was both a shame and a disgrace for girls to work as we do, but there was naught else for us to do. I began to hurry when I was seven and I have been hurrying ever since. I have been 11 years in the pits. The girls are always tired. I was poorly twice this winter; it was with headache. I hurry for Robert Wiggins; he is not akin to me. . . . We don't always get enough to eat and drink, but we get a good supper. I have known my father go at two in the morning to work. . . . and he didn't come out till four. I am quite sure that we work constantly 12 hours except on Saturdays. We wear trousers and our shifts in the pit and great big shoes clinkered and nailed. The girls never work naked to the waist in our pit. The men don't insult us in the pit. The conduct of the girls in the pit is good enough sometimes and sometimes bad enough. I never went to a day-school. I went a little to a Sunday-school, but I soon gave it over. I thought it too bad to be confined both Sundays and week-days. I walk about and get the fresh air on Sundays. I have not learnt to read. I don't know my letters. I never learnt naught. I never go to church or chapel; there is no church or chapel at Gawber, there is none nearer than a mile. . . . I have never heard that a good man came into the world who was God's son to save sinners. I never heard of Christ at all. Nobody has ever told me about him, nor have my father and mother ever taught me to pray. I know no prayer; I never pray.

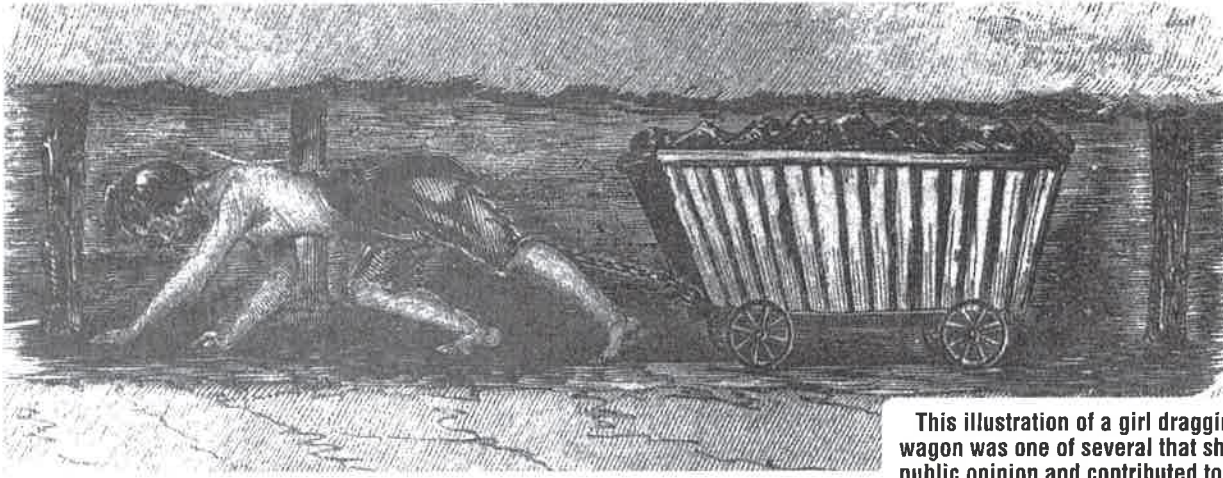
Patience Kershaw, Age 17

My father has been dead about a year; my mother is living and has ten children; five lads and five lasses; the oldest is about thirty, the youngest is four; three lasses go to mill; all the lads are colliers, two getters and three hurriers; one lives

and get ill-used by other children, and their clothes torn. Then when I came home in the evening, everything was to do after the day's labor, and I was so tired I had no heart for it; no fire lit, nothing cooked, no water fetched, the house dirty, and nothing comfortable for my husband. It is all far better now, and I wouldn't go down again.¹²

The Early Labor Movement in Britain

Many kinds of employment changed slowly during and after the Industrial Revolution in Great Britain. In 1850 more British people still worked on farms than in any other occupation. The second-largest occupation was domestic service, with more than one million



This illustration of a girl dragging a coal wagon was one of several that shocked public opinion and contributed to the Mines Act of 1842. (© British Library Board, B.S. REF.18 volume 17, 65)

at home and does nothing, mother does nothing but look after home.

All my sisters have been hurriers, but three went to the mill. Alice went because her legs swelled from hurrying in cold water when she was hot. I never went to day-school; I go to Sunday-school, but I cannot read or write; I go to pit at five o'clock in the morning and come out at five in the evening; I get my breakfast of porridge and milk first; I take my dinner with me, a cake, and eat it as I go. I do not stop or rest any time for the purpose; I get nothing else until I get home, and then have potatoes and meat, not every day meat. I hurry in the clothes I have now got on, trousers and ragged jacket; the bald place upon my head is made by thrusting the corves; my legs have never swelled, but sisters did when they went to mill; I hurry the corves a mile and more under ground and back; they weigh 300 cwt.* I hurry 11 a day; I wear a belt and chain at the workings to get the corves out; the putters [miners] that I work for are naked except their caps; they pull off all their clothes; I see them at work when I go up; sometimes they beat me, if I am not quick enough, with their hands; they strike me upon my back; the boys take liberties with me, sometimes, they pull me about; I am the only girl in the pit; there are about 20 boys and 15 men; all the men are naked; I would rather work in mill than in coal-pit.

Isabel Wilson, Coal Putter, 38 Years Old

When women have children thick [fast] they are compelled to take them down early. I have been married 19 years and have had 10 bairns [children]; seven are in life. When on Sir

*An old English unit of weight equaling 112 pounds.

John's work was a carrier of coals, which caused me to miscarry five times from the strains, and was gai [very] ill after each. Putting is no so oppressive, last child was born on Saturday morning, and I was at work on the Friday night.

Once met with an accident, a coal broke my cheek-bone, which kept me idle some weeks. I have wrought below 30 years, and so has the guid man; he is getting touched in the breath now.

None of the children read, as the work is no regular. I did read once, but ne able to attend to it now; when I go below lassie, 10 years of age keeps house and makes the broth or stir-about.

Source: *Voices of the Industrial Revolution: Selected Readings from the Liberal Economists and Their Critics*, pp. 87-90, edited by J. Bowditch and C. Ramsland. Copyright © 1961, 1989 by the University of Michigan. Reprinted by permission of the publisher.

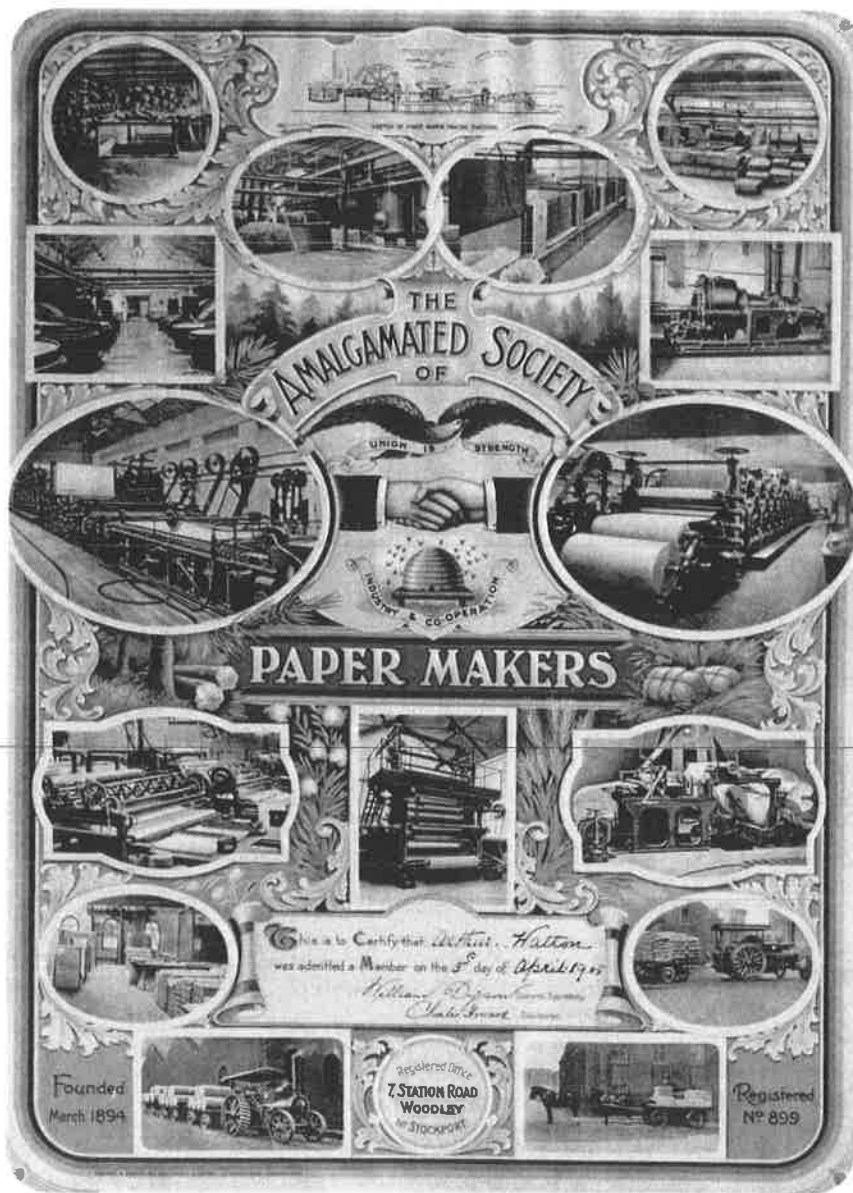
QUESTIONS FOR ANALYSIS

1. How does Payne's testimony compare with that of Ann Eggley and Patience Kershaw?
2. Describe the work of Eggley, Kershaw, and Wilson. What strikes you most about the testimonies of these workers?
3. The witnesses were responding to questions from middle-class commissioners. What did the commissioners seem interested in? Why?

household servants, 90 percent of whom were women. Thus many old, familiar jobs outside industry lived on and provided alternatives for individual workers. This helped ease the transition to industrial civilization.

Within industry itself, the pattern of artisans working with hand tools in small shops remained unchanged in many trades, even as others were revolutionized by technological change. For example, the British iron in-

dustry was completely dominated by large-scale capitalist firms by 1850. Many large ironworks had more than one thousand people on their payrolls. Yet the firms that fashioned iron into small metal goods, such as tools, tableware, and toys, employed on average fewer than ten wage workers who used handicraft skills. Only gradually after 1850 did some owners find ways to reorganize some handicraft industries with new machines



Union Membership Certificate This handsome membership certificate belonged to Arthur Watton, a properly trained and certified papermaker of Kings Norton in Birmingham, England. Members of such unions proudly framed their certificates and displayed them in their homes, showing that they were skilled workers. (Courtesy, Sylvia Waddell)

and new patterns of work. The survival of small workshops gave many workers an alternative to factory employment.

Working-class solidarity and class-consciousness developed in small workshops as well as in large factories. In the northern factory districts, anticapitalist sentiments were frequent by the 1820s. Commenting in 1825 on a strike in the woolen center of Bradford and the support it had gathered from other regions, one paper claimed with pride that “it is all the workers of England against a few masters of Bradford.”¹³ Modern technology and factory organization had created a few versus the many.

The transformation of some traditional trades by organizational changes, rather than technological innovations, could by themselves also create ill will and class feeling. The classical liberal concept of economic freedom and *laissez faire* emerged in the late eighteenth century, and it continued to gather strength in the early nineteenth century. In 1799 Parliament passed the **Combination Acts**, which outlawed unions and strikes. In 1813 and 1814 Parliament repealed the old and often disregarded law of 1563 regulating the wages of artisans and the conditions of apprenticeship. As a result of these and other measures, certain skilled artisan workers, such as bootmakers and high-quality tailors, found aggressive capitalists ignoring traditional work rules and trying to flood their trades with unorganized women workers and children to beat down wages.

The capitalist attack on artisan guilds and work rules was bitterly resented by many craftworkers, who subsequently played an important part in Great Britain and in other countries in gradually building a modern labor movement. The Combination Acts were widely disregarded by workers. Printers, papermakers, carpenters, tailors, and other such craftsmen continued to take collective action, and societies of skilled factory workers also organized unions. Unions sought to control the number of skilled workers, to limit apprenticeship to members’ own children, and to bargain with owners over wages.

They were not afraid to strike; there was, for example, a general strike of adult cotton spinners in Manchester in 1810. In the face of widespread union activity, Parliament repealed the Combination Acts in 1824, and unions were tolerated, though not fully accepted, after 1825. The next stage in the development

• **Combination Acts** English laws passed in 1799 that outlawed unions and strikes, favoring capitalist business people over skilled artisans. Bitterly resented and widely disregarded by many craft guilds, the acts were repealed by Parliament in 1824.

of the British trade-union movement was the attempt to create a single large national union. This effort was led not so much by working people as by social reformers such as Robert Owen. Owen, a self-made cotton manufacturer (see page 705), had pioneered in industrial relations by combining firm discipline with concern for the health, safety, and hours of his workers. After 1815 he experimented with cooperative and socialist communities, including one at New Harmony, Indiana. Then in 1834 Owen organized one of the largest and most visionary of the early national unions, the Grand National Consolidated Trades Union.

When Owen's and other grandiose schemes collapsed, the British labor movement moved once again after 1851 in the direction of craft unions. The most famous of these was the Amalgamated Society of Engineers, which represented skilled machinists. These unions won real benefits for members by fairly conservative means and thus became an accepted part of the industrial scene.

British workers also engaged in direct political activity in defense of their own interests. After the collapse of Owen's national trade union, many working people went into the Chartist movement, which sought political democracy. The key Chartist demand — that all men be given the right to vote — became the great hope of millions of aroused people. Workers were also active in campaigns to limit the workday in factories to ten hours and to permit duty-free importation of wheat into Great Britain to secure cheap bread. Thus working people developed a sense of their own identity and played an active role in shaping the new industrial sys-

tem. They were neither helpless victims nor passive beneficiaries.

The Impact of Slavery

Another mass labor force of the Industrial Revolution was made up of the millions of enslaved men, women, and children who toiled in European colonies in the Caribbean and in North and South America. Historians have long debated the extent to which revenue from slavery contributed to Britain's achievements in the Industrial Revolution. They now agree that profits from colonial plantations and slave trading were a small portion of British income in the eighteenth century and were probably more often invested in land than in industry.

Nevertheless, the impact of slavery on Britain's economy was much broader than direct profits alone. In the mid-eighteenth century the need for items to exchange for colonial cotton, sugar, tobacco, and slaves stimulated demand for British manufactured goods in the Caribbean, North America, and West Africa. Britain's dominance in the slave trade also led to the development of finance and credit institutions that would help early industrialists obtain capital for their businesses. The British Parliament abolished the slave trade in 1807 and freed all slaves in British territories in 1833, but by 1850 most of the cotton processed by British mills was supplied by the coerced labor of slaves in the southern United States. Thus, the Industrial Revolution cannot be detached from the Atlantic world and the misery of slavery it included.

CONNECTIONS



For much of its history, Europe lagged behind older and more sophisticated civilizations in China and the Middle East. There was little reason to predict that the West would one day achieve world dominance. And yet by 1800 Europe had broken ahead of the other regions of the world in terms of wealth and power, a process historians have termed "the Great Divergence."¹

One important prerequisite for the rise of Europe was its growing control over world trade, first in the Indian Ocean in the sixteenth and seventeenth centuries and then in the eighteenth-century Atlantic world. Acquisition of New World colonies — itself the accidental result of explorers seeking direct access to the rich Afroeurasian trade world — brought Europeans new sources of wealth and raw materials as well as guaranteed markets for their finished goods. A second crucial factor in the rise of Europe was the Industrial Revolution, which by dramatically increasing the pace of production and distribution while reducing their cost, allowed Europeans to control other countries first economically and then politically. Britain dominated this process at first, but was soon followed by other European nations. By the middle of the nineteenth century the gap between Western industrial production and standards of living and those of the non-West had grown dramatically, bringing with it the economic dependence of non-Western nations, meager wages for their largely impoverished populations, and increasingly aggressive Western imperial