

WOMAN THE MOTHER OF INDUSTRY

While primitive man was hunting and fighting, primitive woman was creating and practicing the arts of peace. Indeed the habit of work—of labor as a conscious and persistent employment of effort for the attainment of some end—was primarily woman's contribution. Mankind had to be trained to labor, and woman was the original learner and teacher. Much of the activity of early man was not labor. "The pursuit of food wherever it can be found by the members of the primitive horde," says Ward, "can no more be called labor than can the grazing of a buffalo or the browsing of an antelope. . . . Only the work of the women in caring for the men and the children, and in performing the drudgery of the camp, approaches the character of labor" in the economic or institutional sense. "In early society," says Westermarck, "just as among ourselves, each sex has its own pursuits." Man's "occupations are such as require strength and ability"; while the "principal occupations of the woman are universally of a domestic kind," including agriculture. Only in a very general sense is this statement true. There was not always a thorough division of activities on the sex line. Men sometimes shared in the work usually done by women; and women sometimes accompanied men in hunting or other pursuits commonly monopolized by the male.

When slavery arose as an economic institution women were the favorite, though not the exclusive, subjects of exploitation. If, as some sociologists believe, mankind was first inured to labor by slavery, then primitive women chiefly benefited, as they chiefly suffered, from this harsh discipline. Often the wife was the chattel slave of her husband; yet such absolute subjection was not the universal condition of primitive, especially of barbaric, woman.

Decidedly the woman was the chief provider for the family in its early stages. This fact may be accented by a fairly typical case. An investigation of the *Family among the Australian Aborigines*, by Malinowski, shows that "woman's work is on the whole much heavier than that done by man; her work is much more regular; it is compulsory, and it forms the chief support of the household." There is no true co-operation in economic functions; but the "relation of a husband to his wife is, in its economic aspect, that of a master to his slave." The woman's "share in labor was of much more vital importance to the maintenance of the household than man's work." Even the food supply contributed by women was more important than man's share. Moreover, "it seems as if the man's contribution, which in the main was reduced to his hunting products, was devoted much less exclusively to his family's benefit."

Woman was the chief inventor of the original types of the useful arts. Psychologically, cunning and invention are identical. This faculty enabled mankind to master the forces of nature. In the male, it was drawn out by warfare and the chase, and fostered through his later control of the state and the economic system. On the other hand, the whole struggle for food, clothing, and shelter—for race preservation—has challenged the inventive powers of the female. In countless ways woman created the archetypes, designed the first patterns, of man's later and more specialized inventions. First of

WOMAN'S WORK. The work of primitive woman—of woman in the savage, barbaric, or other lower stage of progress—is of basic value for the evolution of industry and social culture. Research clearly discloses the great variety and relative importance of her achievements.

all, she developed household science. She searched for edible fruits, herbs, roots, seeds, and nuts; brewed and concocted drinks; tried out processes of cooking, seasoning, etc.

Many other inventions must be credited to primitive woman. The variety in design, the technical skill, the beauty of decoration, and the inventive genius revealed by the pottery, basketry, and textile fabrics of aboriginal tribes, such as the American Indians, challenge our admiration and render the great National Museum a monument to woman's early achievement.

Most important of all, woman was par excellence the social creator. The mother more than the father was the builder of the first types of the family constitution. The establishment of the earliest forms of marriage, that is, the usages and folkways by which for the good of the race sex relations were controlled and disciplined, was chiefly woman's work. She was the first molder of social custom. Probably there never was a general stage of gynocracy, implying the social leadership of women and eventually the political and even the military subordination of men. The inheritance of name and family rights through the mother does not necessarily mean the headship of woman in the family. Yet the very wide prevalence of mother right, even in this restricted sense, must often have tended, as among American aborigines, to place woman at the point of vantage in the development of household and matrimonial institutions.

These institutions were chiefly shaped by economic forces controlled by the mother in her struggle for the conservation of the child. From the first, well says Anna Garlin Spencer, woman "enjoyed the special tutoring of that most persistent and effective trainer in industrial education which the world of nature has yet produced, the human infant." In particular, if the "prolongation of human infancy," as John Fiske suggests, is the "chief agency towards civilization," it is because the demands of the child have made the mother, aided by the father, the principal bearer and disseminator of cumulative culture. During the years of relative helplessness the child appropriates, takes over, the elements of domestic morals and folklore. Because of this overlapping of the generations the stream of tradition, of *mores*, of "down-imitation" never stops flowing; and the heritage of knowledge is thus preserved. The function of teacher belonged to the primitive mother in quite as full measure as to the modern. The vocational training of the daughter was almost wholly in her hands; and until puberty, when his education was handed over to the "men's house," or other public control, she shared with the father in the nurture of the son.

DOMESTIC OR HAND INDUSTRY

The pursuit of war and the chase gave the male the advantage of superior bodily strength and initiative. The protector of the family became the founder of the state and the warrior became the ruler. With the decrease of warfare and the rise of the institution of property men more and more turned their attention to the industrial arts. The talent for invention forced out by militarism was used for the more specialized development of the arts which women had founded. Men discovered that labor was the best means for satisfying their mul-

tiplying wants, and a partial realignment of the social services took place. By preference men appropriated the work requiring skill and strength, while women more and more withdrew from agriculture and the other outdoor callings to devote themselves to the arts and crafts which centered in the immediate household life. With the rise of feudalism in Europe the woman of leisure, the "lady," appeared. The wife or daughter of the feudal chief, of the "gentleman," must abstain from gainful or menial toil. Thus war developed the false ideal of chivalry of helpless dependence of the female on the male.

Still the woman of the castle or the manor house was by no means always a parasite. Decidedly, under very unfavorable conditions, the woman of the feudal leisure class, in quite as full measure as her lord, contributed to the culture and refinement which constitute a precious spiritual asset of advancing civilization. On the other hand, in their homes the women of the masses were busy with many kinds of productive industry. The greater part of this work, by no means the least important, consisted of the unpaid domestic labor which everywhere women continue to perform. Nor has woman's work ever been exclusively confined to indoor activities or to the lighter kinds of toil. In modern times in Europe much of the heavy labor on the farm and in the city was done by women. The traveler might sometimes see them serving as beasts of burden and also as traction animals dragging the cart or the plow. Moreover, women in America share with the men in a vast number of the coarser and heavier kinds of gainful toil.

A picture of industrial life before the age of factory production shows that nearly all kinds of manufacture—the iron, steel, and wood crafts chiefly followed by men, as well as the textile, sewing, and other arts by preference belonging to women—were installed in the home or near by. To some extent milling, brewing, and distilling were exceptions to this rule. The industrial group was the family group, embracing the mother, father, and child, as well as the indentured apprentice. Not until the second decade of the nineteenth century was machine production well started in the United States. For the colonial period woman's share in industry is meagre. Still, research enables us to see that relatively it was very important. The prevailing economic interests of the country were agriculture and commerce; and in these the men were chiefly engaged. Manufactures, such as the men would naturally have taken up, were often hampered or entirely suppressed by act of Parliament. Woman's work was not thus hindered. Besides the unpaid household arts and miscellaneous gainful activities, the textile industries and the clothing and sewing trades were largely, though not wholly, in the hands of women. Except some of the heavier kinds, this industry included weaving, which in England was mainly men's work. In America "men were sometimes weavers, shoemakers, or tailors; and here and there women of notable executive ability, such as the famous Eliza Lucas of South Carolina, managed farms and plantations" (Abbott). Among gainful occupations undertaken by the Colonial woman—other than the usual domestic employments—were shopkeeping, the keeping of taverns and ordinaries, chair-frame making, the

running of sawmills, grist mills, distilleries, and even slaughterhouses. Sometimes a woman kept a "dame school," became a nurse or midwife, printed books and pamphlets, or even published a newspaper.

These occasional occupations were of minor importance compared with the many-sided textile industry in which the mass of women were employed in their homes. This manufacture of textiles includes knitting, lacemaking, the making of "cards for combing cotton and wool, as well as sewing, spinning, and weaving." Almost literally—from the raw wool, cotton, or flax to the finished garment—the Colonial population was clothed by its women. The surplus products of the spindle and the loom were sold from the home to customers; or, like butter and eggs, were exchanged at the neighboring store for other goods. Sometimes they were sold outright to the trade. Old account books of merchants reveal the important contributions of woman spinners and weavers to the family income. With the "expansion of industry, especially in the latter half of the eighteenth century, a considerable part of the work was done more in the manner of what is known as the commission system. As yarn came to be in great demand, many women were regularly employed spinning at home for purchasers who were really commission merchants. These men sometimes sold the yarn, but often they put it out again to be woven and then sold the cloth." In the clothing and garment industry, too, the product, after supplying the family needs, was usually made to order and sold to customers.

There was no cry of woman's invasion of men's work in the Colonial period. Public sentiment strongly favored the employment of women and girls in manufacturing or other productive labor. Idleness, especially for women, was a grievous sin in the eyes of the Puritan, and laws were enacted to provide work and to encourage thrift. To relieve the poor or to promote American production, so-called manufactories were built by legislative authority, by voluntary associations, or through individual enterprise. These manufactories were merely a new organization of handwork. Only in the fact that a number of employees were assembled in a special room or building, where hand looms, sometimes spindles, were installed, do they represent a transition to the modern factory system. During the second half of the eighteenth century many such manufactories were built. In Boston, New York, Philadelphia, Baltimore, and some smaller towns hundreds of women and girls were employed, chiefly in weaving, but occasionally "in all the processes of cloth making." Thus it is clear that wage-earning women made their appearance in the handicraft stage. Furthermore, many girls, nominally bound out to domestic service, were in reality thus earning wages as spinners and weavers. Both girls and boys were indentured as apprentices; but the girl's indenture was really a mere binding out to service. It did not mean that she should be taught a trade. Thousands of women did indeed acquire skill, craftsmanship, in weaving, spinning, and sewing; but in very slight degree was this due to conscious private or public care for their vocational education.

THE INDUSTRIAL REVOLUTION

The change from the handicraft or domestic stage to that of factory production is rightly

called the "industrial revolution." The advent of machines for manufacturing processes, with the application of power, had tremendous consequences: economic, social, and political. The solidarity of the industrial family group was broken up. Gainful work passed out of the home; and men, women, and children followed it into the factory. There was a period of transition, measured by the progress of invention and by industrial opportunity. For England the change was fairly inaugurated in 1800; in America the transition from the old system to the new was much slower. In the textile industry, e.g., factories for spinning preceded those for weaving. Most of the 168 cotton factories in the United States in 1810 were probably merely spinning mills. In some of them, weaving on hand looms was combined with spinning by machinery. Usually, according to Dr. Sumner, in these early spinning factories, the spinners were "girls from the neighboring towns, and the weaving was done by women, or by both men and women of the neighborhood." Occasionally the introduction of spinning machines caused a displacement of women by children; sometimes a displacement of women by men; but generally the factory was looked upon as a new opportunity to utilize women and children in productive work.

In textiles the complete factory system in the United States began in 1814 with the setting up of the first successful power loom at Waltham, Mass. First in cotton, later in wool, and gradually in all kinds of textiles the power loom stopped hand work. Women, just as they had followed their spinning, now followed their weaving into the factory. It is not surprising that for many years after the advent of the complete factory system in the United States, a larger number of women than men were employed in textile industries. Public sentiment strongly favored the utilization of the labor of women and children in the factory at a time when there was a pressing demand for the labor of men in agriculture. In England the conditions were different. There, under the domestic system, weaving had been largely in the hands of men. Before the industrial revolution the manufacture of cloth had become an important industry; and the establishment of the "factory system created a disaffected class of unemployed workmen who were jealous of the new machinery which could be easily managed by women and children and which was taking the work away from them." In the United States many more females than males were engaged in manufacture; but they were not looked upon by the men as intruders. They were welcomed by moralist, economist, and statesman alike.

WOMEN VS. MEN IN INDUSTRIAL OCCUPATION

For the century since the establishment of the complete factory system in the United States the statistics of the relative employment of the sexes are enlightening and decisive. Both in the textile industries as a whole and in the very important branch of cotton manufactures the proportion of females as compared with males engaged has declined.

Cotton Industry. In 1810 Albert Gallatin, from returns from 87 mills, estimated that in the cotton industry 87.5 per cent of the employees were women and children; while in 1816 an estimate based on a report to the House of

Representatives made the percentage of women and female children about 66. In the same industry since 1831, the percentage that women formed of all employees was 68 in 1831; 64 in 1850; 62 in 1860; 60 in 1870; 57 in 1880; 54 in 1890; 49 in 1900; 47 in 1905; and 44.1 in 1910. During the same period, the relative decrease in the number of females employed in the cotton mills of Massachusetts is even more striking. The percentage was 80 in 1831; 75 in 1837; 70 in 1845; 62 in 1865; 59 in 1875; 55 in 1885; 50 in 1895; and 48 in 1905. Thus during the century in cotton manufacture, woman's chief industry, women have steadily been displaced by men.

All Textile Industries. A similar though less steady displacement has taken place in the entire group of textiles. In 1850 the percentage which women wage earners formed of all employees was 50.2; in 1860, 53.4; in 1870, 43.3; in 1880, 44.8; in 1890, 47.6; in 1900, 40.6; in 1905, 44.4.

Five Chief Industries. Most enlightening as to the question of displacement of the wage earners of one sex by those of the other is Dr. Abbott's study of the five industrial groups which at the beginning of the twentieth century employed the greatest number of women; and in all of which women had been engaged for more than a century.

NUMBER OF PERSONS EMPLOYED IN 1905

	Women	Men
In the cotton mills	128,163	147,283
In the clothing industry.....	147,710	101,373
Total.....	275,873	248,653
In boots and shoes.....	49,535	95,257
In printing and publishing.....	19,975	65,293
Total.....	69,510	160,550
In cigars and tobacco.....	57,174	72,970

At the beginning of the century, cotton manufacture and the clothing trades were almost exclusively women's work; while "printing and shoemaking are examples of skilled trades which may be said on the whole to have belonged to men." In the "cotton and the clothing trades, therefore, men are doing work which for the most part was once done by women. In the printing trade and in the manufacture of boots and shoes, women are doing the work which would a century ago have been done by men." But the table shows that "to-day the men's share in the two women's industries is much greater than the share of women in the two men's industries." In the readjustment of work, "men have gained more than women." Cigar making "has been carried on at different times both by men and by women, and furnishes an example of the way in which work originally done by women, but later taken by men, may come to be women's work again."

There has been hardly any conscious intrusion by either sex into the occupations of the other. When the demand for labor has been keen and competition not feared men have urged women to enter industrial occupations. With an oversupply of cheap labor and menace of unemployment, men have sometimes complained of woman's invasion. Women have occasionally charged men with like conduct. The

relative shares which men, women, and children have at any stage in the world's work is determined mainly by physical, economic, and social laws. Essentially the readjustment of vocations between the sexes is a bread-and-butter problem; while the division of labor incident to machine production has ever given new opportunities to women, the physically weaker sex. In fact, as Scott Nearing has demonstrated, the new alignment of occupations shows that in the main women are choosing the trades requiring dexterity and perseverance; while men are following those demanding strength and skill. Thus in his graph the percentage which women form of all employees gradually falls from 99.4 in dressmaking to 2.9 in manufacturing and mechanical pursuits. It is important, too, to consider that in proportion to the population the number of both men and women engaged in manufacturing industry has rapidly increased. In 1850, according to Dr. Abbott's critical estimate, 87 men and 28 women out of every thousand persons of each sex over 10 years of age were so employed, as compared with 142 men and 39 women in 1900. Relatively, therefore, the number of men engaged in manufacturing and mechanical pursuits is increasing much faster than that of the women. During the 50 years ending in 1900, while the female workers of this division show an increase of 11 per 1000 persons over 10 years of age, male workers gain five times as many. Moreover, for the years 1900-10 the relative decline in the proportion of female workers in the same industrial division is greater than in any preceding decade.

NUMBER AND DISTRIBUTION OF FEMALES IN ALL GAINFUL OCCUPATIONS

Volume IV of the *Thirteenth Census of the United States*, for "occupation statistics," contains an impressive exhibit of the vast amount and variety of woman's gainful service. It is the more imposing when one considers that the equally valuable unpaid toil of women in the household is not included. For continental United States in 1910, of the 34,552,712 females of 10 years of age and over, 8,075,000, or 23.4 per cent, were engaged in gainful occupations; as compared with 2,647,157 or 14.7 per cent in 1880. During the same period for the same age class, the number of male breadwinners advanced from 14,744,942 to 30,091,564, or from 78.7 to 81.3 per cent. Thus a still clearer light is thrown on the process of readjustment in the choice of occupations between the sexes; for, as above seen, while in the division of manufacturing and mechanical pursuits the relative gain in the number of male workers is much greater than in that of the females, in the whole field of paid labor the relative gain in the number of female workers is much larger than that of the males.

The relative distribution of the total number of male and female breadwinners in the five great divisions of occupation for 30 years is shown in the following table taken from vol. iv of the Census of 1910.

In each of the great divisions, it will be seen the absolute number of females employed has increased from decade to decade; but in the relative proportions there are sharp variations and contrasts. While in two divisions—domestic and personal service and manufacturing and

mechanical pursuits—the relative percentage has fallen, notably in the last decennium; in two other divisions—trade and transportation and agricultural pursuits—the last decade shows a decided gain in the relative distribution. More enlightening is the classification of the number and proportion of females in the specified occupations into which the grand divisions are separated. Women have a share in 386 of the 428 gainful pursuits tabulated, although nearly 82 per cent of the female breadwinners are engaged in 19 such pursuits. That is, in all but 42 of the specified occupations women are doing the same kind of work as men. In agricultural pursuits, e.g., in 1910, 1,807,050 (1,807,501 by the new classification) were engaged; and of these 1,514,423 were farm laborers—including of course the negro field hands in the Southern States. It is clear that economic necessity is forcing women to take up work which commonly is looked upon as suitable only for men. For detailed statistics consult vol. iv, *Thirteenth Census of the United States*.

For England and Wales in 1911 the number of females over 15 years returned as occupied was 4,648,241 or 35.4 per cent of all living. In addition 182,496 or 10.4 per cent of the girls aged 10 to 15 were gainfully employed. Dress, textiles, and domestic service employ about 67 per cent of these women. The changes in the relative distribution of woman's work were slight compared with the variations in the United States. Between 1881 and 1901 there was a net gain in percentage in the following groups: government, commercial, professional, 3.3; conveyance, 0.1; metals and precious metals, 0.5; bricks, chemicals, skins, paper, 1.5; food 3.3. On the other hand, there was a net loss in domestic offices and services of 4.4; agriculture, 0.5; mines, 0.1; textiles, 2.0; dress, 1.1; unspecified, 0.6 (Hutchins). The seemingly decided loss in domestic offices and service, however, was due largely to a change in classification, not to any actual decline. The census of 1911 shows but slight changes in gains and losses.

SEX AND GENERAL DIVISION OF OCCUPATION	1910		1900		1890		1880	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Male								
All occupations.....	30,901,564	100.0	23,753,836	100.0	19,312,651	100.0	14,744,942	100.0
Agricultural pursuits.....	10,760,875	35.8	9,404,429	39.6	8,378,603	43.4	7,119,365	48.3
Professional service.....	1,151,709	3.8	827,941	3.5	632,646	3.3	425,947	2.9
Domestic and personal service.....	2,740,176	9.1	3,485,208	14.7	2,553,161	13.2	2,237,493	15.2
Trade and transportation.....	6,403,378	21.3	4,263,617	17.9	3,097,701	16.0	1,808,445	12.3
Manufacturing and mechanical pursuits.....	9,035,426	30.0	5,772,641	24.3	4,650,540	24.1	3,153,692	21.4
Female								
All occupations.....	8,075,772	100.0	5,319,397	100.0	4,005,532	100.0	2,647,157	100.0
Agricultural pursuits.....	1,807,050	22.4	977,336	18.4	769,845	19.2	594,510	22.5
Professional service.....	673,418	8.3	430,597	8.1	311,687	7.8	177,255	6.7
Domestic and personal service.....	2,620,857	32.5	2,095,449	39.4	1,667,651	41.6	1,181,300	44.6
Trade and transportation.....	1,202,352	14.9	503,347	9.5	228,421	5.7	63,058	2.4
Manufacturing and mechanical pursuits.....	1,772,095	21.9	1,312,668	24.7	1,027,928	25.7	631,034	23.8

In Great Britain and Ireland the relative distribution of the sexes in gainful occupations affords even more striking proof of woman's service. Of the population of England and Wales aged over 10 years, 83.8 of the males and 32.5 of the females were reported in 1911 as occupied. Thus the proportion of female breadwinners in those lands was much larger than in the United States. The proportion (1901) was less in Ireland and greater in Scotland than in England or Wales. In 1911 the whole population of England and Wales comprised 17,445,608 males and 18,624,884 females. The excess of 1,179,276 females has great economic meaning, especially when it is considered that the disproportion is much higher in urban than in rural districts. It is chiefly due to the lower death rate of the females. For males the average duration of life in 1900 was 44.13 as contrasted with 47.77 years for the females. It appears that women, though physically weaker, are constitutionally stronger, "have a more tenacious hold on life than men." They have a longer period for productive work. Even in an industrial district, such as Lancashire, "where a large proportion of young women work in the mills, their life is still conspicuously better than of men at the same age."

In England and Wales, the census of 1911 shows 39,124 women engaged in making brick, cement, pottery, and glass; 36,870, in chemicals, oil, grease, soap, and resin; 30,208, in skins, leather, hair, and feathers; 94,722, in agriculture; and 101,050 in metals, machines, implements, and conveyances. In 1911 about 14 per cent of all female breadwinners, over 10 years of age, were married or widowed. In Germany it is estimated that 12 per cent of married women and 44 per cent of widowed women were in gainful occupations. The probabilities are that in Great Britain, too, the "proportion of widowed who are occupied is much higher than the proportion of the married who are occupied." In 1901 one-fourth of the 208,000 married or widowed breadwinners, aged 45 to 55, were charwomen and laundresses. In proportion to the total number of women occupied and in proportion to the total population the number of women engaged in industrial pursuits was decreasing. It was decreasing in coal mining; the making of furniture, lace, gloves, and paper. To some extent, because of the introduction of machinery, they were displaced by men in printing offices and laundries; although in laundries women still constituted 94 per cent of the employees. On the other hand, in va-

rious industries the relative proportion was increasing. Thus in the two decades, 1881-1901, the percentage which females formed of all employed rose from 67.9 to 70.6 in bookbinding; 3.3 to 9.7 in printing and lithographing; 75.7 to 79.9 in tobacco manufacturing. Women were not driving men out of employment. The changes in the distribution of men and women were in part due to influences which were segregating them in noncompeting occupations. Two principal causes were the division of labor and the introduction of machinery. "Women are employed in place of men, because (1) they become more dexterous in the purely mechanical work, (2) they are less impatient over its monotony, and (3) they are cheaper." According to a report of the Board of Trade, there was "not a single case of absolute decrease in the number of males in any group (of occupations) which did not show an absolute decrease in the number of females." It should be noted, that trade-unions resisted the entrance of women into "all industries where labor is organized and where women have become real competitors with men"; and this was notably the case in the printing trades. Doubtless the exploitation of women's labor through a wage lower than that which men received for like service was the basic cause of this opposition.

STRUGGLE FOR THE SHORT WORK DAY

The movement for safeguarding the interests of wage-earning women had in view mainly the sanctioning of a normal short labor day, with restriction of night work; the securing of a living wage; the improvement of the sanitary and other conditions affecting the welfare of females; and the raising of the efficiency of woman's work through industrial education. The modern factory system was first installed in Great Britain; and there the first factory laws were enacted. The first half century of the dramatic struggle to socialize industry centres in the movement for a 10-hour day. Under influence of Dr. Percival, pioneer of sanitary reform, the credit for starting that movement belongs to the magistrates of Manchester, who in 1784 refused to allow indentures binding apprentices to owners of "cotton mills and other works in which children are obliged to work in the night or more than 10 hours in a day." The early acts of Parliament were confined to the labor of children and young persons, including girls. Women were wholly unprotected. In consequence, employers often substituted them for children in the low-paid occupations. First, in the Act of 1844 relating to textiles, women were restricted to a 12-hour day which had been granted to young persons in 1833. The Act of 1847, for young persons and women engaged in textiles, established from July 1, 1848, a workday of 10 hours and a work week of 58 hours. Soon operators took advantage of the wide range of 15 hours—from 5:30 A.M. to 8:30 P.M.—within which they were able legally to select the period for the 10 hours' work. By a cunning system of shifts, women were sometimes worked 13½ or even 15 hours a day. To prevent this abuse, an amendment was secured in 1850, lengthening the work day to 10½ continuous hours, except for meals, and to 60 hours in one week.

Since 1850 various improvements have been made in the details of the law; and many other occupations have been included. In the textile

industry the work of young persons—those aged 14 to 18—and women is restricted to 55½ hours a week. In other regulated industries the weekly limit is 60 hours, except that in some occupations women may work a carefully defined amount of overtime. When employed in a domestic workshop—which often is a sweatshop—women may toil as many hours as they like every day except Sunday. Practically speaking, a "domestic workshop" means the home turned into a factory, provided "neither steam, water, nor other mechanical power is used in aid of the manufacturing process carried on there," and that only members of the family are employed. The work of young persons and women in factories at night is forbidden; and knowingly an operator may not employ a woman within four weeks after childbirth. The tendency in Great Britain was thus described: "The agitation for shorter hours is not so active as it would be were not labor unions, improved machinery, and the general transformation of industry bringing these about without further assistance from legislation. In many industries and establishments women and children are not at present employed the full hours allowed by law, because better results are obtained by a shorter working day." On the other hand, public sentiment favored the bringing of new and quasi-manufacturing industries—such as laundry work—under the law. The Act of 1907 came far short of securing the normal day for women workers in laundries. The hours of male workers were not regulated by the factory acts. Men relied on their bargaining power through the trade-unions; but in industries where the work of men and women was correlated the effect of the short hour laws for women was to establish the same limit for men.

In the United States, legislation for shorter hours for women made a feeble beginning in 1847, the year of the triumph of the 10-hour movement in Great Britain. Previously the working day was very long. In the cotton factories of Lowell and the whole eastern district of the United States in 1832, the working week was 73½ hours; in the middle and southern districts, 75½ hours. Some classes of operatives, whose toil was especially fatiguing, worked fewer hours; but overtime was a common abuse. The agitation for a 10-hour working day, beginning about 1831, bore fruit in 1847, when New Hampshire passed the first 10-hour law. By 1853 10-hour laws had been enacted in Maine, Pennsylvania, New Jersey, and Rhode Island; but they were generally evaded or not enforced. Usually they applied only to corporations. Sometimes, as by the New Hampshire Act, contracting for longer hours was permitted. If the operatives refused to sign contracts, they were summarily discharged; and often they were blacklisted. In New Jersey and Pennsylvania many factories adopted the 10-hour law; but with a reduction of wages, causing strikes. Meantime many of the mills of Massachusetts, in the efforts to stem the rising tide of the 10-hour movement, voluntarily adopted shorter hours. In effect, without legislation, Massachusetts thus took the lead in shortening the work day of factory women; and the passage of its 10-hour law in 1874 marks the beginning of the modern period of State regulation of woman's work. Since that date many States have reduced the length of the legal working day for both men and women. Later, under guidance

chiefly of the National Consumers' League, the short-hours movement made swift progress. At least 22 States took favorable action during the legislative sessions of 1913. In that year three great industrial States—Connecticut, New York, and Pennsylvania—joined Indiana, Massachusetts, Nebraska, and 14 nations of Europe in abolishing night work of women in factories—a principle sanctioned by the British Acts of 1844 and 1847. At the same time four States—California, Ohio, Oregon, and Wisconsin—adopted the novel method of vesting in industrial welfare or like commissions, within the maximum limit established by law, the authority to fix the hours of woman's work so as to conserve life, health, and welfare. Kansas created an Industrial Welfare Commission with similar powers in 1915.

In 1915, 39 States had regulated the daily or weekly hours of woman's work. The maximum was 11 hours a day and 58 hours a week in Vermont (1912); in South Carolina (1912), 11 hours a day and 60 hours a week for cotton and woolen mills, and 12 hours a day and 60 hours a week for mercantile occupations; in Tennessee (1913), 10½ hours a day and 58 hours a week, the one-half hour being expressly allowed in order to provide one short day; in New Hampshire (1913), 10¼ hours a day and 55 hours a week, except at night when the maximum period is 8 hours or 48 hours a week; in Kentucky (1913), Louisiana (1908), Maryland (1913), Oregon (1913), New Jersey (1912), and, for cotton and woolen mills, in Georgia (1911) the limit is 10 hours a day and 60 hours a week. But in Oregon the Welfare Commission (1914-15) was establishing shorter labor days for women. Illinois (1911), North Dakota (1905), South Dakota (1913), and Virginia (1912) had also established a 10-hour day without specifying the number of working days a week. In Connecticut (1913), Delaware (1913), and Wisconsin (1913) the maximum was 10 hours a day and 55 hours a week; while the same daily period with 54 hours a week was sanctioned in Massachusetts, Ohio, Pennsylvania, Rhode Island, and Texas, each in 1913, and in Michigan, 1911. In Kansas the Industrial Welfare Commission might limit the hours of women's work.

The movement for a still shorter working day was led by the equal-suffrage States. The law

to "mercantile establishments in any second-class city"; while the Minnesota Act permitted a 10-hour day and a 58-hour week in mercantile and certain other enumerated occupations. Only in Arizona (1913), California (1913), Colorado (1913), Washington (1911), Wyoming (1915), and Porto Rico (1913) had women been granted a general working day of 8 hours. For public work or service Kansas (1913), Massachusetts (1909), Nevada (1912), Oregon, Ohio, and Wisconsin (each in 1913) adopted the same short day. Only in the case of night work for a public-service corporation in cities had Nebraska (1913-15) sanctioned the 8 hours' work period.

Several States, while not prohibiting, restricted the night work of females. For those under 18 years it was prohibited by Arkansas, California, and Michigan; under 21, by Georgia; in mercantile occupations, by South Carolina; for more than 8 hours in one night or 48 hours a week, by New Hampshire and Wisconsin. In some cases certain employments were exempt from the application of the short-hour statutes. Thus cotton mills are excepted in Texas; canneries in Delaware, Idaho, Ohio, Minnesota, Missouri, New York, Pennsylvania, and Washington. Child-bearing women were protected in Connecticut, Massachusetts, New York, and Vermont; and a number of States restricted the employment of women in dangerous occupations.

STRUGGLE FOR A LIVING WAGE

There has been no complete survey of women's wages in the United States; but through the investigation of experts, notably in the works of Abbott, Sumner, Nearing, and Persons, evidence has been gathered sufficient to reveal the essential truth. During the century following the rise of machine industry women received very low wages, and relatively, in like occupations, their wages were much lower than those of men. Thus in the cotton mills of Waltham, Mass., in 1821, 52 of the 63 men employed in all divisions of the industry received a weekly wage of \$4 or more; while 136 of the 284 women were paid less than \$2.50, and only one woman as much as \$4. During the same period wages in Lowell corresponded closely with the rates in Waltham; and in Merrimack, 1824, the "lowest wage for men" was "higher than the highest wage for women." These figures may be taken as typical for the textile industry. Taking all

INDUSTRIES	NUMBER OF EMPLOYEES				MEDIAN WAGE PER WEEK			
	Men		Women		Men		Women	
	1890	1900	1890	1900	1890	1900	1890	1900
New England cotton mills	1,668	2,182	2,640	2,653	\$8.00	\$8.50	\$5.50	\$6.00
Boots and shoes	1,372	2,177	362	421	11.00	11.50	6.00	6.00
Cigar making	697	1,065	254	573	11.00	11.50	6.00	5.50
Clothing	737	1,094	1,263	2,051	11.50	10.00	4.50	4.00
Printing	3,082	3,033	374	572	16.00	15.00	5.00	5.00

sanctioned 9 hours a day in Arkansas (1915), Idaho (1913), Kansas, Missouri (1913), Minnesota (1913), Montana (1913), Nebraska (1913), New York (1913), Utah (1911), and Maine (1915). By an amendment, 1915, the Nebraska Act was practically restricted to about one-fourth of the State. In New York the 9-hour maximum applied not only to factories, but also

trades together, in 1863 the average wages of women in New York were said to be about \$2 a week. The above table, derived from the Dewey report prepared for the twelfth census, for the decade 1890-1900, shows the weekly median wage for all occupations in the New England cotton mills and in four other important industries in the whole country.

The comprehensive "report of the Census Bureau in 1905 covering more than 588,000 female workers over 15 years of age, in manufacture . . . shows 18.4 per cent receiving under \$4.00 per week; 49.8 per cent under \$6.00; and 79.9 per cent under \$8.00" (C. E. Persons, in *Quarterly Journal of Economics*, xxix (Feb., 1915), 208. More recent statistical reports afford similar results for various manufacturing industries (cf. Scott Nearing, in *Popular Science Monthly*, May, 1915).

From the Dewey report on 22 manufacturing industries, giving returns for 156,569 men 16 years old and over and for 16,724 women of the same age group, Dr. Abbott computed that in 1900 one-fourth of the men received a weekly median wage of less than \$8.31; one-fourth of the women, below \$4.49; one-half of the men, below \$10.55; one-half of the women, below \$5.64; three-fourths of the men, below \$13.93; three-fourths of the women, below \$6.86.

From the available statistical sources covering the years 1908-10 Dr. Nearing (*Wages in the United States*) computed the wage scale of adult males and females employed east of the Rockies and north of the Mason and Dixon line. Deducting 20 per cent for lack of employment, he estimated that the annual earnings of one-fifth of the women were under \$200; of one-tenth of the men and six-tenths of the women, under \$325; of one-half of the men and nine-tenths of the women, under \$500; of three-fourths of the men and nineteen-twentieths of the women, under \$600; of nine-tenths of the men, under \$800.

Even from these general averages the inference is inevitable that many thousands of working women were receiving a wage insufficient to sustain a safe standard of living. Special investigations and estimates of experts for the great cities put this inference beyond question. In Boston, New York, or Chicago it is conservative to say that a just minimum wage would be not less than \$8 a week; whereas in Chicago alone it was held by the Women's Trade Union League that the average wage of the 125,000 working women was less than \$6 a week.

In 1912 the Massachusetts commission on minimum wage boards declared it "indisputable that a great part" of the 182,651 women employed in the industries of the State "are receiving compensation that is inadequate, to meet the necessary cost of living"; and in 1914 the Factory Commission found like conditions in the principal trade centres of New York State.

Similar or worse conditions existed in some European countries, and misery, vice, and crime were the result. In the whole of Europe, according to Borosini, were 700,000 illegitimate births each year; and "most unmarried mothers are recruited from among the poorly paid and insufficiently protected industrial workers and domestics. The loneliness and lack of freedom of the latter all over Europe is pitiful. Long hours of work at low wages and abominable quarters is their lot."

Movement for a Legal Minimum Wage. As early as 1828 Mathew Carey began his now famous crusade against the low wages of that "numerous and very interesting portion of our population, the working women." About two-thirds of the women then employed in the sewing trades of Boston, New York, Philadelphia, and Baltimore, he said, "could not earn, by constant employment for 16 hours out of the 24,

more than \$1.25 per week" (Sumner). The effort to secure social control of the standard of living took in later years the form of minimum-wage legislation. Minimum-wage boards for private employments have been established by law in New Zealand since 1894, later followed by New South Wales, Western Australia, and the Australian Commonwealth; in Victoria since 1896, later followed by South Australia, Queensland, and Tasmania; and in the United Kingdom since 1909. In all these cases the minimum-wage laws affect both male and female workers. The New Zealand type of legislation aimed primarily at the settlement of trade disputes; while the Victorian type, followed by the United Kingdom, had in view chiefly the evils of the sweating system. In the United States the first laws establishing a minimum wage, related to public employees in cities or States, both men and women. Thus in 1913 the city of Spokane by popular vote established a flat minimum wage scale of \$3 a day on public work. Among the States which have provided a wage rate of from \$2 to \$3 a day are California, Indiana, Maryland (for the city of Baltimore), Massachusetts, Nebraska, and Nevada. The first attempt to protect the "American standard of living" in behalf of private employees was made by Nebraska in 1909. The unsuccessful bill of that year sought to establish a flat minimum rate of 20 cents an hour and \$9 a week for men and women working in stores, factories, packing houses, and workshops. In 1912 Massachusetts enacted the first minimum wage statute. Similar laws were passed by California, Colorado, Minnesota, Nebraska, Oregon, Utah, Washington, and Wisconsin in 1913, and by Kansas in 1915. These Acts applied to females and to male minors under 18 in all States, except in Minnesota and Wisconsin where the age limit for males was 21; in Utah, where the statute applied to females, and in Kansas, where women, learners, and apprentices were included. The inclusion of adult men was opposed by the trade-unions, or objected to on alleged constitutional grounds.

Except in Colorado and Utah, the administration of these laws was vested in a State commission, working in connection with subordinate wage boards for each particular industry. The commission consisted of three members in all States, except in California and Washington, where there were five; and in Nebraska, where there were four. In Colorado the administration was vested wholly in a State wage board of three members. In all States except Oregon, Washington, and Wisconsin at least one member must be a woman; in Nebraska one must be a member of the Political Science department of the State University; and in Colorado, Minnesota, and Oregon both employers and employees must be represented on the commission. Utah in the Act itself fixed a daily flat minimum wage rate of \$1.25 for experienced adults, 75 cents for females under 18 years, and 90 cents for adult learners and apprentices. Equal representation of employers and employees on the subordinate wage boards was required in all States except in Wisconsin, followed closely by Kansas, where the advisory wage board must be constituted "so as to fairly represent employers, employees, and the public." In all cases the commission had authority to make the initial investigation of industrial conditions, and to fix the minimum wage rates. It had power to

fix such rates and the "conditions of work" in Washington; such rates and conditions as well as the "hours of work" in California, Kansas, Oregon, and Wisconsin. In determining the rate for particular industries the commission might act on the reports of subordinate trade boards. The establishment of such boards was mandatory only in Kansas, Massachusetts, Nebraska, and Wisconsin. Jurisdiction extended to all trades (or industries) and occupations in each State, except in Colorado, where it covered only mercantile and manufacturing establishments, laundries, hotels, restaurants, and telephone and telegraph offices. By the California law the minimum rate was declared to be a wage adequate to sustain "the necessary cost of proper living and to maintain health and welfare." In Wisconsin a living wage was a wage sufficient to maintain conditions consistent with welfare; and welfare was defined to include "reasonable comfort, reasonable physical well-being, decency, and moral well-being."

Arkansas (1915), like Utah, established flat daily minimum rates: \$1 for apprentices, and \$1.25 for experienced workers. On April 13, 1914, for women over the age of 18, Washington adopted a minimum wage of \$10 a week. The Oregon Industrial Commission established the following State-wide minimum rates: \$1 a day for girls between the ages of 16 and 18 working in manufacturing or mercantile establishments, millinery, dressmaking, or hairdressing shop, laundry, hotel, or restaurant, telephone or telegraph office; \$8 a week for experienced adult women and \$6 for inexperienced adult women employed in any industry. Also in the city of Portland the following rates for experienced adult women: \$8.64 a week of 50 hours in manufacturing establishments; \$9.25 a week in mercantile establishments; and \$40 a month in offices, including eleven classes of work. On Nov. 23, 1914, the commission of Minnesota fixed the minimum wage of women and minors as follows: in mercantile establishments, telephone and telegraph occupations, and all office work, \$9 a week in cities of the first class; \$8.50 in cities of the second, third, and fourth classes; and \$8 in all other parts of the State; in manufacturing, laundry, restaurant, and hotel employments, 25 cents less than these weekly rates, except that the lowest rate sanctioned is \$8. The Massachusetts commission first investigated conditions in the brush-making, corset, and confectionery industries. In its report to the commission, the brushmakers' wage board found \$8.71 a week or \$453 a year to be the minimum, "without which no girl worker can supply the necessary cost of living and maintain herself in health." For experienced female employees in this industry the commission decreed (Aug. 14, 1914) a minimum rate of 15 cents an hour; and 65 per cent of this amount for learners and apprentices, the period of apprenticeship to be not more than one year.

The constitutionality of the Oregon minimum wage law was twice sustained by the State Supreme Court, and was carried before the Supreme Court of the United States for final decision.

SOCIALIZATION OF INDUSTRIAL CONDITIONS

The low pay of women as compared with that of men is in part due to woman's relative inefficiency. In general their lower wage is "not unequal pay for equal work, but unequal pay for different and probably inferior work." The

productive power of women in industry is often inferior in both quantity and quality. Justly as well as unjustly, looked at simply as an economic situation, men have monopolized the better paid and the more highly skilled employments. The chief causes of this relative inefficiency are not hard to find. In last analysis not woman but society is at fault. The working woman is the victim of social conditions and customs which may be changed. If she has been passive, lacking in class consciousness, it is partly because of ancient prejudices and traditions regarding her proper place in the social order. She has not enjoyed the same opportunity as man for industrial education. She has had small share in vocational training either in school or in apprenticeship. She has been slow to grasp the meaning of organization; and grudgingly, as a means of self-protection, have men admitted her to the trade-union. For many women wage earning was always looked upon as a transition stage of life while awaiting marriage. Girls living with their parents accepted low pay in store or factory as a means of adding to their luxuries; although this sort of parasitism, of pin money, was by no means so important a factor in the low wage standard as was once imagined. Yet, after due allowance is made for actual inefficiency, there is abundant evidence to prove that the bad, often the shameful, conditions of woman's work were due largely to merciless exploitation. The toiling woman suffered because she was a woman. In many European lands her lot is still deplorable. In Great Britain conditions were even worse than in the United States; although the "darkest spots in America are in many ways quite as dark as any of those in the older country."

In the second decade of the twentieth century there were distinct signs of an era of social justice for women engaged in the world's work. The battle for the short day and a living wage was being won. Old traditions and prejudices were giving way. Marriage was ceasing to be a trade for a great number of women. Slowly better facilities for industrial training were being provided. Departments of household economics were making home building a profession. In various ways toiling mothers were being protected. More efficient factory inspection was being established. Through requirement of toilet rooms, rest rooms, and other facilities, decency, morality, and health were being safeguarded. The National Consumers' League was successfully warring upon the sweatshop. Swiftly class consciousness was rising. Women were learning the value of organization. In the United States and in Great Britain they were increasing their bargaining power and bettering the conditions of labor by entrance into trade-unions and through such organizations as the Woman's Trade Union Leagues, the National League of Women Workers, and the National Women's Labor League. Moreover, through possession of the ballot in equal suffrage lands, they were winning a full share of social control by participating in law making and in government (see WOMAN SUFFRAGE).

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