

. . . The standing of course would exhaust the women and make them more liable to other illnesses. (See pages 5379-5387.)

*Reports from Committee on Early Closing of Shops, British House of Lords, 1901, Vol. VI.*

Considering the weight which belongs to that memorial (submitted by some doctors in 1888), the Committee did not deem it necessary to multiply medical evidence on the subject. The presidents, however, both of the College of Physicians and of the College of Surgeons, have come before us and spoken strongly on the great and increasing evils of the present long hours. Sir W. MacCormac stated that "There is no doubt in my mind that such long hours (it speaks of an average of fourteen hours per day) must contribute to the incidence of disease; that it must lower the general vitality of persons so engaged and render them more liable than they otherwise would be to attacks of different forms of disease. These hours, too, for the most part, are worked in an atmosphere very prejudicial to health, and we know how largely the air so contaminated contributed to the production of various forms of disease in which tubercule, for instance, and manifold forms of disease in which tubercule manifests itself, and that other disease of great cities (rickette) has some parts of its origin from this cause."

Furthermore, he urged on us that the evil is one which increases as time runs on; "it is gradual and progressive in its effects, and it goes on, I am afraid, in a cumulative degree."

Sir W. Selby Church, the president of the College of Physicians, gave similar evidence.

We are able, however, to appeal to the highest medical testimony as to the injury thus caused (long hours — especially on women).

In 1888 presidents of the two great medical colleges with some of the other leaders of the medical profession, Sir James Paget, Sir Andrew Clark, Dr. Matthews Duncan, Mr. John Marshall, Dr. Playfair, Dr. Priestly, Sir Richard Quain, Sir Wm. Savory, Sir Samuel Wilks, called the attention of Parliament to the subject and urged the passing of the Early Closing Bill. (Page v.)

*Report of British Chief Inspectors of Factorics and Workshops, 1901.*

Ten and a half hours sitting bent over stitching, requiring very careful attention, with two intervals so short that only a hasty meal can be eaten, that there is no time for exercise, even were the workers

permitted to go out, and that, day after day, might well try the strongest constitutions and ruin the best digestions and nerves.

That its effect on the health is injurious is constantly brought before one, and anæmic and heavy-eyed workers who suffer from neuralgia who form too large a proportion of the whole number, make one feel very strongly that some reform is needed. (Page 176.)

*Report of British Chief Inspector of Factories and Workshops, 1903.*

T. M. LEGGE, H. M. *Medical Inspector of Factories and Workshops.*

“A point of some importance which was mentioned to me by the medical attendant at one factory (cigar) was that the number of cases under treatment for sickness varied *pari passu* with the amount of overtime work,” *i. e.* over ten hours in one day. (Page 286.)

*Journal of Royal Sanitary Institute, Vol. XXV. M. G. BOND-FIELD. London, 1904.*

Sir William MacCormac, giving evidence before the Lords' Committee on The Early Closing of Shops, said, “There is no doubt, I think in my mind, that such long hours must contribute to the incidence of disease; that it must lower the general vitality of persons so engaged, and render them more liable than they otherwise would be to attacks of different forms of disease. . . . These hours, too, for the most part are worked in an atmosphere very prejudicial to health. . . . I quite agree with the opinions of my predecessors that such long hours are very grievous, and are calculated to do the community in which they prevail serious harm. . . . It must have an influence on their offspring, undoubtedly. . . . In one sense it cannot be said to be urgent, but it is insidious; it is gradual and progressive in its effect. And it goes on I am afraid, in a cumulative degree.” (Page 742.)

Sir William Church, who gave evidence the same day, said: “There is another great group which falls under the observation of the ordinary physician and of which we see a very great deal in our London Hospitals, and that is an anæmic condition which is produced partly by long hours of work, and still more by the confinement that this employment entails.” (Page 743.)

*From the Reports of Factory Inspectors. Collated in the Imperial Home Office, Berlin, 1905. The Working Hours of Female Factory Hands.*

Report for Bremen: The reduction for the working hours for women will be of great value to the entire working population, and more especially to workingmen's families. It is of great hygienic importance on account of the more delicate physical organization of woman, and will contribute much toward the better care of children and the maintenance of a regular family life.

The Inspector for Erfurt urges the introduction of the ten-hour day for women because "eleven hours daily toil in a factory is extremely exhausting for the weaker physical organization of woman. Although perhaps under good sanitary conditions of work no direct injury to health may be traced to the eleven-hours day, still it is certain that women and girls who work in factories are worn out much sooner than those who do not. The factory worker who has most likely a poor physical inheritance to contend with, and is poorly nourished, is liable to frequent attacks of sickness."

Report for Cassel: The ill effects of factory work for women is most marked in those cases where long hours are joined to heavy work. The female frame is not strong enough to resist the harmful influence of such work for any length of time. Although the ill effects may not show themselves at once, it is not unlikely that injuries to health which manifest themselves years after may be traced back to former work in the factory. The total exclusion of women from the factories is not at present contemplated, but the introduction of the ten-hour day will tend towards reducing the harmful influence of factory work. (Page 107.)

The inspector for Erfurt reports that when a working girl marries, unless she is very strong she gradually fails in health and is frequently unfitted for giving birth to healthy children or to nurse those who are born. (Page 111.)

*Report of the British Chief Inspector of Factories and Workshops, 1906. Appendix II. Report on Tobacco, Cigars and Cigarette Industry.*

The question of the health of the workers has been the main object of our enquiry, and we have therefore given our attention chiefly to this point. It is impossible to consider the industry an unhealthy one. With the exception of one or two processes there has been little

or no evidence to prove that the manufacture of tobacco is in itself injurious to health. . . . In six of the largest factories visited a very complete system of preliminary medical examination was found to be carried out by the doctors specially appointed by the firms. . . . We have gained a great deal of information from these doctors, whose experience is almost unique. Our attention was drawn to a very interesting and important point by two of the doctors; their experience (which in one case has been tabulated) had led them to form the opinion that overtime has a very marked bearing on the normal health of the workers. They had noted an increase during and just after periods of overtime work of from one-third to one-half in the number of workers coming to them for treatment; the matters complained of were not anything special, but simply an increase in the usual form of ailment, such as indigestion, anæmia, heavy colds (in winter), gastric disorders in summer. When one considers that overtime here means simply employment up to the normal legal period, that is, ten and ten and a half hours a day, and does not mean overtime as permitted in a large number of industries (in the case of women over eighteen), and which extends to twelve hours in the day, the result is all the more striking, and one feels that a similar record in one of the industries in which overtime is allowed would produce more noticeable statistics of the results of over-fatigue. The conclusion seems to us clear that eight and a half to nine hours' work a day cannot be exceeded by women and girls without overstrain and fatigue resulting in a lower standard of health." (Page 253.)

*From Reports by the District Inspectors (of France) upon the Question of Night Work (Paris, 1900). By M. Legard, Inspecteur Divisionnaire de la 10<sup>e</sup> circonscription à Marseille.*

During an investigation made by the inspector (lady) of work in the dressmaking establishments of the city of Marseilles, several workwomen complained that after a certain number of evenings of overtime, they did not recover their sleep, dispelled by fatigue. They went home to sleep some hours in the morning before returning to their work. Therefore these workers lost a part of the seven or eight hours of sleep absolutely requisite to an adult for proper rest. They did not have restful nights after very full days. Insomnia visited them with all its accompanying evils. Sleep is so important from the health standpoint that there is perhaps no function which should be so conscientiously exercised. Everything which affects the hygiene of sleep constitutes a danger, because the equilibrium of the nervous system is jeopardized. (Page 71.)

*Age and Sex in Occupations. Twentieth Century Practice of Medicine, 1895, Vol. III. By DR. JAMES H. LLOYD.*

Woman may suffer in health in various ways that do not affect materially her mortality — neurasthenia, the bane of overworked and underfed women, does not leave a definite trace on the mortality tables.

Again, woman's ill-health and drudgery in a factory may affect her progeny in a way that the statistician cannot estimate. (Page 326.)

Women are said to suffer from derangements and displacements from occupations requiring long standing and certain movements of the body, while the lacteal secretion is impaired by some occupations, and also by enforced absence of mothers from their nursing infants. (Page 327).

Neurasthenia from overwork. . . . It cannot be ignored, because among its well recognized and active causes is the strain of excessive labor. (Page 488).

I have been struck . . . with the numerous facts that have come to my notice tending to convince me that one of the most common effects of overwork and poor hygiene in industrial life is an ill-defined condition of neurasthenia, insomnia, headache, and pains in and along the spine . . . extreme lassitude and weakness occur.

The treatment of neurasthenia from overwork should be first, by removing or modifying the cause as much as possible. (Page 490.)

*Journal of the American Medical Association, May 19, 1906. Fatigue. By DR. FREDERICK S. LEE, Prof. Physiology, Columbia University, N. Y.*

There are probably few physiologic functions that are not affected unfavorably by the prolonged and excessive activity of the muscular and the nervous systems. In such a condition the normal action of the tissues may easily give place to pathologic action.

Fatigue undoubtedly diminishes the resistance of the tissues to bacteria, and also predisposes the individual to attacks from diseases other than bacterial. . . .

Heretofore attention has been directed chiefly to the extreme effects of the pathologic acids. . . .

We should not forget, however, that long before these extreme effects are manifested the same causes are producing evil, if less obvious, phenomena, and rendering the cells less capable of their proper functions. . . .

Mankind at present can administer no food or drug that can push the wearied cells up the metabolic grade. . . . Only the assimilation

and detoxication that normally come with rest, and best, rest with sleep, are capable of adequate restoring power.

*The Hygiene, Diseases, and Mortality of Occupations.* 1892. J. T. ARLIDGE, M. D., F. R. C. P., *Late Melroy Lecturer at Royal College.*

Excessive exertion may operate either over a long period and produce its ill results slowly, or be sudden and severe. . . . When such people are seized by some definite lesion, attention is so completely attracted to it that the antecedent over-toil laying the foundation for the malady is apt to be overlooked. (Page 16.)

The want of exercise of the body induces general torpidity of functions, reduces lung capacity and respiratory completeness, and the activity of the abdominal muscles, which aid both respiration and the functions of the digestive organs. Hence, the proclivity to venous stasis (congestion), particularly in the pelvis and lower extremities and in the rectal vessels, with the production of constipation, — and in women of menstrual difficulties, — add to these disorders of digestion in their multiform shape, debilitated muscular power, and a low vitality and vigor generally.

When insufficient muscular activity is associated with almost constant standing, the increased difficulty to the return of the blood from the lower limbs is the most pronounced feature, and productive of varicose veins, and ulcers and thickened knee, and ankle joints. (Page 19.)

#### (2) SPECIFIC EVIL EFFECTS ON CHILDBIRTH AND FEMALE FUNCTIONS

The evil effect of overwork before as well as after marriage upon childbirth is marked and disastrous.

*Report of Select Committee on Shops Early Closing Bill. British House of Commons, 1895.*

Testimony of Dr. W. Chapman Grigg (formerly out-patient physician for the diseases of women at Westminster Hospital, and senior physician to the Queen Charlotte Lying-in Hospital and the Victoria Hospital for Children).

Would you please tell us in a general way your experience as to the effects of these prolonged hours on health?

It has a very grave effect upon the generative organs of women,

entailing a great deal of suffering and also injuring a very large body of them permanently, setting up inflammation in the pelvis in connection with those organs. . . .

I have had a great many sad cases come before me of women who were permanent invalids in consequence.

If the matter could be gone into carefully, I think the committee would be perfectly surprised to find what a large number of these women are rendered sterile in consequence of these prolonged hours.

I believe that is one of the greatest evils attached to these prolonged hours. I have seen many cases in families where certain members who have pursued the calling of shop-girl assistants have been sterile, while other members of the family have borne children. I know of one case where four members of a family who were shop-girls were sterile, and two other girls in the family, not shop-girls, have borne children; and I have known other cases in which this has occurred. . . . I have patients come to me from all parts of London. It appears to be a most common condition.

When these women have children, do you find that the children themselves suffer from the woman having been affected by these very long hours?

I have seen many cases where I have attributed the mischief arising in childbed to this inflammatory mischief in the mother, which, after delivery, has set up fresh mischief, and I have seen serious consequences resulting. (Page 219.)

*Report to the Local Governing Board on Proposed Changes in Hours and Ages of Employment in Textile Factories, by J. H. BRIDGES, M.D., and T. HOLMES. British Parliamentary Papers. 1873. Vol. LV. (Page 39.)*

Experience afforded by residence in the worsted manufacturing town of Bradford, and extensive practise among its population during periods of from one to thirty-five years:

A. Amongst the *women* of factory operatives, much more than among the general population, derangements of the digestive organs are common, *e. g.*, pyrosis, sickness, constipation, vertigo, and headache, generated by neglect of the calls of nature through the early hours of work, the short intervals at meals, the eating and drinking of easily prepared foods, as bread, tea, and coffee, and the neglect of meat and fresh cooked vegetables. Other deranged states of a still worse character are present, *e. g.*, leucorrhœa and too frequent and profuse

menstruation. Cases also of displacement, flexions, and versions of the uterus, arising from the constant standing and the increased heat of and confinement in the mill. . . . (Edema and varicose veins of the legs are common amongst female mill-workers of middle age.

Q. Has the labor any tendency to increase the rate of infant mortality?

A. Yes. The evils occurring in women as detailed in answer to question 2 indirectly affect the more perfect growth of the child in utero, and dispose it when born more easily to become diseased.

Signed on behalf of the Bradford Medico Chirurgical Society, at a meeting held February 4, 1873.

Sub-Committee.

President, J. H. BELL, M. D.

P. E. MIALL, M. R. C. S.

Secretary, DAVID GOYDER, M. D.

*Report of the British Chief Inspector of Factories and Workshops, 1873. DR. R. H. LEACH, Certifying Surgeon for over Thirty Years.*

Shorten their hours of labor, for I believe that scores of infants are annually lost under the present system. As things now stand, a mother leaves her infant (say of two months old) at 6 A. M., often asleep in bed, at 8 she nurses it, then until 12.30 the child is bottle fed, or stuffed with indigestible food. On her return at noon, overheated and exhausted, her milk is unfit for the child's nourishment, and this state of things is again repeated until 6 P. M.; the consequence is, that the child suffers from spasmodic diarrhoea, often complicated with convulsions and ending in death.

*Report of Massachusetts Bureau of Labor Statistics, 1875.*

It seems to be the back that gives out. Girls cannot work more than eight hours, and keep it up; they know it, and they rarely will, — and even this seems to “pull them down,” so that it is extremely rare that a girl continues more than a few years at the business.

Mr. B——, foreman of a large printing establishment, says: “Girls must sit at the ‘case.’ I never knew but one woman, and she a strong, vigorous Irishwoman, of unusual height, who could stand at the case like a man. Female compositors, as a rule, are sickly, suffering much from backache, headache, weak limbs, and general ‘female weakness.’”

Miss ——, for several years in charge of the female department



of one of the largest offices in the country, testified: "One year is as long as one can work in a busy office without a good vacation. The confined position, constipation, heat, and dizzy headache, I think, are the most noticeable troubles of 'lady operators' who are 'grown up.' The hours are too long for such strained employment. From 8 A. M. to 6 P. M., with only an hour for dinner, makes too long a day for the kind of work." (Pages 90-92.)

Miss J—, a lady compositor, says: "We cannot stand at the 'case.' It increases back and head ache, and weakness of limbs, as well as a dragging weight about the hips. I have been at this work five years, but have been frequently obliged to give up for vacations from peculiar troubles and general debility. I began to menstruate when fourteen; I am now twenty-two. I was well until I had set type for a year, when I began to be troubled with difficult periods, and have been more or less ever since. When I go away I get better, but, as often as I return to my work, I am troubled again. Have wholly lost color, and am not nearly as fleshy and heavy as when I began work. I have now a good deal of pain in my chest, and some cough, which increases, if I work harder than usual. I am well acquainted with many other lady compositors who suffer as I do."

Miss S—, a lady long in charge of the "composing-room" (female department) of a large printing establishment testifies: "I was myself a compositor, and have had scores of girls under me and with me, many of whom I have known intimately. I have no hesitation in saying that I think I never knew a dozen lady compositors who were 'well.' Their principal troubles are those belonging to the sex, and great pain in back, limbs, and head.

*Report of the Massachusetts Bureau of Statistics of Labor, 1884.*

We secured the personal history of these 1032 of the whole 20,000 working girls of Boston, a number amply sufficient for the scientific purposes of the investigation. (Page 5.)

Long hours, and being obliged to stand all day, are very generally advanced as the principal reasons for any lack or loss of health occasioned by the work of the girls. 3. Exhaustion from overwork. In consequence of the long hours of labor, the great speed the machinery is run at, the large number of looms the weavers tend, and the general overtasking, so much exhaustion is produced in most cases that, immediately after taking supper, the tired operatives drop to sleep in their chairs. . . . 10. Predisposition to pelvic disease, There

appears, as far as my observation goes, quite a predisposition to pelvic disease among the female factory operatives, producing difficulty in parturition. The necessity for instrumental delivery has very much increased within a few years, owing to the females working in the mills while they are pregnant and in consequence of deformed pelvis. Other uterine diseases are produced, and, in other cases, aggravated in consequence of the same. (Page 69.)

*Report of the California Bureau of Labor Statistics, 1887-1888.*

Dr. F. B. Kane of San Francisco says: "Very many times my attention has been drawn professionally to the injury caused by the long hours of standing required of the saleswomen in this city, the one position most calculated to cause the manifold diseases peculiar to their sex, and direfully does Nature punish the disobedience of her laws."

Dr. C. A. Clinton, of the San Francisco Board of Health, says: "I am decidedly of the opinion that it is highly injurious. It will certainly aggravate any existing complaints, and still more, it will and does have a tendency to induce complaints in persons previously free from them. It is especially injurious to females in regard to the diseases peculiar to the female sex." (Page 102.)

*Report of the New Jersey Bureau of Statistics of Labor and Industries, 1902.*

The weak, physical condition of the operatives, especially the females, is very noticeable. . . .

The long hours of labor, frequently ten or twelve, and the foul air of the workroom is most marked in its effects upon the female operatives. In addition to throat and lung diseases, which are almost equally prevalent among both sexes, the sufferings of the female operatives from causes peculiar to the sex is very greatly aggravated by the conditions under which they work.

A physician of high standing whose practice is largely among the operatives of these mills is authority for the statement that a large majority of female mill-workers are sufferers from some one or more of the organic complaints brought on or intensified by the conditions under which they work. If no such disease existed before entering the mill, it was almost sure to develop soon after beginning work; if it did exist before, it was aggravated to a degree that made them easy victims of consumption.

The long hours of labor, being constantly standing, the foul air of the workroom, and, more than all, the ceaseless vibration of the floor from the motion of the great mass of machinery are the prime factors in producing these diseases. (Page 377.)

*La Réglementation Légale du Travail des Femmes et des Enfants dans l'Industrie Italienne.* LIONEL BAUDOIN.

At the International Congress at Milan, on accidents among the laboring class, in May, 1894, Mr. Luigi Belloc (Factory Inspector of the Department of Labor) represented Italy. He stated that the continuous motion of the body taxes the nervous system, causing the gravest troubles. The sewing-machine, which requires of the operator 40,000 movements a day, causes in the long run abdominal and renal troubles, disarrangement of the menstrual function, and falling and deviations of the uterus. Functional weaknesses and paralysis are the result of the continual performance of the same movement. The necessity of standing or sitting for the whole day causes malformation of the body or curvature of the spine, as a result of the strained position. The attention required in watching a machine, especially an automatic one, is very fatiguing, on account of the large number of wheels operating at the same time which need attention.

Women employed in the manufacture of tobacco and of matches are subject to gastric, intestinal troubles, and affections of the respiratory tract, necrosis of the jaw, and are liable to miscarriage. Women employed in sorting rags used in the manufacture of paper are liable to smallpox or carbuncle. Tuberculosis spreads with alarming rapidity, especially among cotton and wool weavers. Those whom tuberculosis spares drag along with anæmia, the most common malady of the women factory workers, especially the textile workers, who are subject to long hours of labor. . . .

For the cotton industry in particular Mr. Luigi Belloc demands the ten-hour day. (Page 14.)

*Infant Mortality: A Social Problem.* GEO. NEWMAN, M. D., London, 1906.

Physical fatigue, particularly if accompanied by a strain and stress, are likely to exert a decided effect in the production of premature birth, particularly if these conditions are accompanied by long hours of work and poor or insufficient nourishment. (Page 80.)

The direct injuries to women and girls employed in factories and workshops are: (c) Injury through fatigue and strain, long hours and insufficient periods of rest for food, . . . and (e) Too short a period of rest at the time of childbirth.

Over and over again, in the official reports of factory inspectors or medical officers of health, does one meet with evidences of these injuries. Where the conditions resulting in these evils, coupled with the absence of the mother from home, are present, the infant mortality is high; where they are not present, it is usually low. (Page 131.)

In consequence of the fact that while there has been a steady and continuous decline in the general mortality of Preston during the past thirty years, the infant mortality has shown an increase, a sub-committee was appointed to inquire into the causes (1902), and submitted certain conclusions:

(1) First among these causes is the employment of female labor in mills. An occupation requiring a woman to stand during the greater part of the day when continued up to within a few days or even hours of the time of parturition, must act to the detriment of the offspring, and there is less chance of the latter coming into the world fully grown, well formed, and in good health. Many deaths taking place during the first month, which are returned as due to premature birth, immaturity, congenital debility, convulsions, and the like, may safely be ascribed to this cause.

In a general way it may be said that it is the employment of women from girlhood all through married life and through the period of child-bearing, the continual stress and strain of the work and hours, and general conditions prevailing in women's labor, that is exerting its baneful influence on the individual and on the home. (Page 134.)

### C. *Bad Effect of Long Hours on Safety*

Accidents to working women occur most frequently at the close of the day, or after a long period of uninterrupted work. The coincidence of casualties and fatigue due to long hours is thus made manifest.

*British Parliamentary Debates. Third Series. 1844. Vol. LXXIII.  
Lord Ashley's Speech.*

"Those honourable gentlemen who have been in the habit of perusing the melancholy details of mill accidents should know that

a large proportion of those accidents — particularly those which may be denominated the minor class, such as loss of fingers and the like — occur in the last hours of the evening, when the people become so tired that they absolutely get reckless of the danger. I state this on the authority of several practical spinners. Hence arise many serious evils to the working classes, none greater than the early prostration of their strength.” (Page 1082.)

*Report of the German Imperial Factory Inspectors, 1895.*

The ten-hour day, with the exceptions necessary for certain trades, is a measure which can be introduced without great difficulty, and which would prevent many dangers threatening the health of workers. Many accidents are no doubt due to the relaxed vigilance and lessening of bodily strength following excessive hours of work. (Page 369.)

*Report of the British Chief Inspector of Factories and Workshops, 1900.*

One can only feel surprise that accidents are not more numerous (in laundries), when one realizes that the slightest carelessness or inattention may result in the fingers or hand being drawn between the hot cylinders, and when one considers how easily such inattention may arise in the case of the over-tired young workers. (Page 383.)

*Report of British Chief Inspector of Factories and Workshops, 1903.*

The comparative immunity from accidents in the laundries in the West Riding of Yorkshire may be possibly due in some measure to the moderate hours of employment.

The incidents of accidents according to time of day is somewhat surprising, the most dangerous hours apparently being 11 A. M. to 12 noon and 4 to 6 P. M. . . . Probably 11 A. M. to 12 noon is more generally than any other time the last tiring hour of a day five hours' spell; 4-6 P. M. covers the time when most generally the transition is from daylight to artificial light.” (Page 210.)

Reference was also made (in the Thirteenth International Congress of Hygiene), although figures were not adduced, to the alleged increase in the number of accidents which occur late in the working day when the effect of intellectual and physical fatigue have made themselves apparent. (Page 298.)

*Infant Mortality: A Social Problem.* GEORGE NEWMAN, M. D.,  
London, 1906.

The results of fatigue become manifest in various ways, not the least being the occurrence of accidents or of physical breakdown. The former, as is now well recognized, occur most frequently in fatigued workers. For example, since 1900 there has been a steady, though not marked, increase in the number of accidents to women over eighteen years of age in laundries. In 1900 such accidents numbered 131; in 1904, 157. Now it has been shown that whilst the first half of the day yields about the same number of accidents as the second half, more accidents, amounting to nearly double the number, occur between the hours of 11 A. M. and 1 P. M., and between 4 P. M. and 7 P. M. than at any other time of the day. (Page 112.)

*Getting a Living.* By G. L. BOHN.

CHAP. 15. SHORTER WORKDAY.

If in the tenth hour as much work has been done as the average for the previous nine hours, a reduction of time to nine hours per day, at the same pay, would be an increase of wages by eleven and one-ninth per cent, unless the extra hour of rest increased the hourly product. But in any work not fixed in speed by steadily running machinery, less is done in the tenth hour, by reason of weariness, than in other hours; and the work of the last hour, like overtime work at night, weakens a person for the next day. It is this weariness that causes accidents to occur two or three times as frequently in the last hour as in other hours — a fact proved by European statistics. With the steady machinery, too, weariness, as a rule, either lowers the quality of the work done, or by frequent stoppage lessens its amount — often causing both these losses. (Page 407.)

D. *Bad Effect of Long Hours on Morals*

The effect of overwork on morals is closely related to the injury to health. Laxity of moral fibre follows physical debility. When the working day is so long that no time whatever is left for a minimum of leisure or home-life, relief from the strain of work is sought in alcoholic stimulants and other excesses.

*Massachusetts Legislative Document.* House, 1866, No. 98.

Overwork is the fruitful source of innumerable evils. Ten and eleven hours daily of hard labor are more than the human system can bear, save in a few exceptional cases. . . . It cripples the body, ruins health, shortens life. It stunts the mind, gives no time for culture, no opportunity for reading, study, or mental improvement. It leaves the system jaded and worn, with no ability to study. . . . It tends to dissipation in various forms. The exhausted system craves stimulants. This opens the door to other indulgences, from which flow not only the degeneracy of individuals, but the degeneracy of the race. (Page 24.)

*Relations between Labor and Capital.* U. S. Senate Committee, 1883.

Vol. I. *Testimony of ROBERT HOWARD, Mule-Spinner in Fall River Cotton Mills.*

I have noticed that the hard, slavish overwork is driving those girls into the saloons, after they leave the mills evenings . . . good, respectable girls, but they come out so tired and so thirsty and so exhausted . . . from working along steadily from hour to hour and breathing the noxious effluvia from the grease and other ingredients used in the mill.

Wherever you go . . . near the abodes of people who are overworked, you will always find the sign of the rum-shop.

Drinking is most prevalent among working people where the hours of labor are long. (Page 647.)

*The Case for the Factory Acts.* Edited by MRS. SIDNEY WEBB. London, 1901.

If working long and irregular hours, accepting a bare subsistence wage and enduring insanitary conditions tended to increase women's physical strength and industrial skill — if these conditions of unregulated industry even left unimpaired the woman's natural stock of strength and skill — we might regard factory legislation as irrelevant. But as a matter of fact a whole century of evidence proves exactly the contrary. To leave women's labor unregulated by law means inevitably to leave it exposed to terribly deteriorating influences. The woman's lack of skill and lack of strength is made worse by lack of regulation. And there is still a further deterioration. Any one who has read the evidence given in the various inquiries into the Sweating System will have been struck by the invariable coincidence

of a low standard of regularity, sobriety, and morality, with the conditions to which women, under free competition, are exposed. (Page 209.)

*Dangerous Trades.* THOMAS OLIVER, M. D. London, 1902.

It is frequently asserted that laundry women as a class are intemperate and rougher than most industrial workers. That they are peculiarly irregular in their habits it is impossible to deny; and the long hours, the discomfort and exhaustion due to constant standing in wet and heat, discourage the entrance into the trade of a better class of workers is certain. . . . The prevalence of the drink habit among many of them, of which so much is said, is not difficult to account for: the heat of an atmosphere often laden with particles of soda, ammonia, and other chemicals has a remarkably thirst-inducing effect; the work is for the most part exhausting, even apart from the conditions, and the pernicious habit of quenching the thirst, and stimulating an overtired physical condition, with beer. (Page 672.)

*Report of the British Chief Inspector of Factories and Workshops,* 1902.

The result is disastrous, even from the point of view of this industry itself, which if properly organized would be capable of offering really desirable employment to skilled workers instead of being, as it too often is, the last resort of the idle and intemperate. . . . I would add that too often the very intemperance is created by the conditions of employment, by the excessive overstrain of endurance. (Page 174.)

*Report of the British Association for the Advancement of Science: the Economic Effect of Legislation Regulating Women's Labor,* 1902.

On the morals of the workers there has been a marked effect [by the Factory Acts]. "Saint Monday" is now a thing of the past, and just as irregularity conduces to drunkenness and irregular living, and the rush of overtime at the end of the week, with nothing to do in the early parts, induced an irregular and careless mode of life, so the comparative steadiness of the present methods have tended to raise the standard of morality and sobriety. (Page 287.)



### E. *Bad Effect of Long Hours on General Welfare*

The experience of manufacturing countries has illustrated the evil effect of overwork upon the general welfare. Deterioration of any large portion of the population inevitably lowers the entire community physically, mentally, and morally. When the health of women has been injured by long hours, not only is the working efficiency of the community impaired, but the deterioration is handed down to succeeding generations. Infant mortality rises, while the children of married working-women, who survive, are injured by inevitable neglect. The overwork of future mothers thus directly attacks the welfare of the nation.

#### (1) THE STATE'S NEED OF PROTECTING WOMAN

*Report of the Massachusetts State Board of Health, 1873.* EDWARD JARVIS, M. D.

All additions to the physical, moral, or intellectual power of individuals — in any individual are, to that extent, additions to the energy and the productive force — the effectiveness of the State; and on the contrary, all deductions from these forces, whether of mind or body — every sickness, and injury or disability, every impairment of energy — take so much from the mental force, the safe administration of the body politic. . . .

The State thus has an interest not only in the prosperity, but also in the health and strength and effective power of each one of its members. . . .

The first and largest interest of the State lies in the great agency of human power — the health of the people. (Page 336.)

*Report of the Massachusetts Bureau of Labor Statistics, 1871.*

It is claimed that legislation on this subject is an interference between labor and capital. . . . But legislation has interfered with capital and labor both, in the demand for public safety and the public good. Now public safety and public good, the wealth of the commonwealth, centred, as such wealth is, in the well-being of its common people, demands that the State should interfere by special act in favor

of . . . working-women, and working children, by enacting a ten-hour law, to be enforced by a system of efficient inspection. (Page 567.)

*International Conference in Relation to Labor Legislation. Berlin, 1890.*

It is the idea of the German Emperor that the industrial question demands the attention of all the civilized nations. . . .

The quest of a solution becomes not only a humanitarian duty, but it is exacted also by governmental wisdom, which should at once look out for the well-being of all its citizens and the preservation of the inestimable benefits of civilization. (Page 29.)

*Proceedings of the French Senate. Session of July 7, 1891. M. JULES SIMON.*

It is impossible for me not to tell the Senate what I think of the position of women in industry, and that I may gain your favor, gentlemen, I ask permission to tell you that for at least forty years I have applied myself to this question. (Page 573.)

When I ask, when we ask, for a lessening of the daily toil of women, it is not only of the women that we think; it is not principally of the women, it is of the whole human race. It is of the father, it is of the child, it is of society, which we wish to re-establish on its foundation, from which we believe it has perhaps swerved a little. (Page 575.)

*Report of the New York Bureau of Labor Statistics, 1900.*

The family furnishes the really fundamental education of the growing generation — the education of character; and the family life thus really determines the quality of the rising generation as efficient or non-efficient wealth producers. If a reduction in the hours of labor does promote the growth of a purer and better family life, it will unquestionably result in the production of greater material wealth on the part of the generation trained under its influence; nothing else in fact will so effectively diminish the vast number of criminals, paupers, and idlers, who, in the present generation, consume the people's substance. When one or both parents are away from home for twelve or thirteen hours (the necessary period for those who work ten hours) a day, the children receive comparatively little attention. What was said in the opening paragraph of

this section in discussing the importance of a good family life in the training of character needs repeated emphasis, for it is the fundamental argument for a shorter working day. (Page 69.)

*Hygiene of Occupations.* DR. THEODORE WEYL. *Jena, 1904.*

Women bear the following generation whose health is essentially influenced by that of the mothers, and the State has a vital interest in securing for itself future generations capable of living and maintaining it. (Page 84.)

*The Working Hours of Female Factory Hands. From reports of the Factory Inspectors collated by the Imperial Home Office. Berlin, 1905.*

The reports from Marseburg, Erfurt, Breslau, Hanover, Wurtemberg, and Offenbach dwell upon the dependence of future generations — their total efficiency and value — upon the protection of working women and girls. (Page 111.)

*President Roosevelt's Annual Message delivered to Second Session of 59th Congress. December 4, 1906.*

More and more our people are growing to recognize the fact that the questions which are not merely of industrial but of social importance outweigh all others; and these two questions (labor of women and children) most emphatically come in the category of those which affect in the most far-reaching way the home life of the Nation.

*Legislative Control of Women's Work. By S. P. BRECKINRIDGE. Journal of Political Economy. Vol. XIV. 1906.*

The assumption of control over the conditions under which industrial women are employed is one of the most significant features of recent legislative policy. In many of the advanced industrial communities the State not only undertakes to prescribe a minimum of decency, safety, and healthfulness, below which its wage-earners may not be asked to go, but takes cognizance in several ways of sex differences and sex relationships. . . . In the third place, the State sometimes takes cognizance of the peculiarly close relationship which exists between the health of its women citizens and the physical vigor of future generations. . . . It has been declared a matter of public concern that no group of its women workers

should be allowed to unfit themselves by excessive hours of work, by standing, or other physical strain, for the burden of motherhood which each of them should be able to assume. (Page 107.)

The object of such control is the protection of the physical well-being of the community by setting a limit to the exploitation of the improvident, unworkmanlike, unorganized women who are yet the mothers, actual or prospective, of the coming generation. (Pages 108, 109.)

*Physical and Medical Aspects of Labor and Industry.* By J. L. HOFFMAN. *Annals of Amer. Academy of Political and Social Science.* Vol. XXVII. May, 1906.

Again, in longevity, an increase of vitality, a decrease in disease liability, are all economic-elements of the greatest possible economic importance. They lie at the root of the true labor problem, for they determine in the long run the real and enduring progress, prosperity, and well-being of the masses. . . . It manifestly must be to the advantage of the State, and the employers of labor, that nothing within reason be left undone to raise to the highest possible standard the level of national physique and of health and industrial efficiency. . . . The interests of the nation, of wage-earners as a class, and of society as a whole, transcend the narrow and selfish interests of short-sighted employers of labor, who, disregarding the teachings of medical and other sciences, manage industry and permit the existence of conditions contrary to a sound industrial economy and a rational humanitarianism.

*Labor Laws for Women in Germany.* DR. ALICE SALOMON. *Published by the Women's Industrial Council.* London, 1907.

A study of the laws relating to female labor reveals that it has been the special aim of the legislators to protect and preserve the health of the women in their character as wives and as the mothers of future generations. On the one hand, the regulations are intended to prevent injury to health through over-long hours, or the resumption of work too soon after confinement, often the cause of serious illness which may render the patient incapable of bearing healthy offspring. . . . But if work in the factory be a necessity for women — even for married ones — it is all the more desirable that protective legislation should be so extended and worked out in such detail as to ensure the fullest attainment of its object, viz.: protection for the health of the