

331.4 (73)

U. S. DEPARTMENT OF LABOR  
JAMES J. DAVIS, SECRETARY  
WOMEN'S BUREAU  
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BULLETIN OF THE WOMEN'S BUREAU, NO. 18

# HEALTH PROBLEMS OF WOMEN IN INDUSTRY

(Reprint of article published in *The Nation's Health*, May, 1921)



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PAMPHLET

WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1921

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NEW YORK STATE LUMBER JACKS. ONE EMPLOYER SAID HE PREFERRED WOMEN TO MEN BECAUSE WOMEN ALWAYS CARRIED TWO PLANKS AT ONCE IF THEY COULD POSSIBLY MANAGE IT.

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## HEALTH PROBLEMS OF WOMEN IN INDUSTRY.<sup>1</sup>

Expert Inquiry in this Field Must Precede a Statement of the Case  
of the Woman in Industry.

Practically speaking, the entire program for the regulation of hours, wages, and conditions of work for women in industry is based upon the power of the State to protect health. It is the recognition by the courts of the special significance to general welfare of the health of women combined with the more serious effect upon women than upon men of long hours, low wages, and unhealthy working conditions, which has resulted in the upholding of laws regulating such conditions. With the legal sanction for such regulation once given, legislation of one sort or another affecting conditions under which women may be employed has been put on the statute books of every State in the Union ~~except New Mexico~~. These laws vary in the different States, of course, ranging all the way from a careful regulation of hours and wages and a very definite supervision and control of working conditions in States such as Oregon, California, and the District of Columbia, to the requirement simply of seats for women workers in certain occupations in Alabama, Florida, and West Virginia.

### STANDARDIZATION IS ESSENTIAL.

In spite of the fact that the theory justifying the power of the State to make these regulations has been so generally accepted, the regulations enforced have varied to such an extent that no two States have established the same standards. For this reason one of the earliest tasks undertaken by the Women's Bureau when it was first organized was to formulate definite standards for the employment of women in industry, which could serve as a guide to the many different groups who were working for the better protection of wage-earning women.

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<sup>1</sup> This article was prepared under the direction of Mary Anderson, Director Women's Bureau, United States Department of Labor, by Mary N. Winslow, editor of the Women's Bureau.

The standards thus formulated cover conditions only in a general way, but they are the fundamentals which apply to all industries and all occupations. Qualifications and elaborations may have to be instituted to meet special cases and peculiar conditions, but the fundamental standards necessary to insure health and efficiency will not be altered. Briefly stated, these standards for women in industry which constitute the program and the creed of the Women's Bureau are:

The eight-hour day.

Saturday half holiday.

No nightwork.



AMERICA WILL BE AS STRONG AS HER WOMEN.

A living wage based on occupation and not on sex, with the minimum rate sufficient to cover the cost of living for dependents and not merely for the individual.

Good working conditions, including adequate washing facilities; adequate and sanitary toilet accommodations; dressing rooms, rest rooms, and lunch rooms; clean workrooms with carefully adjusted lighting, ventilation, and heating; plentiful and sanitary drinking

facilities; chairs, machines, and work tables adjusted so that the workers can either stand or sit at their work; carefully guarded machinery; elimination of the necessity for constant standing or other posture causing physical strain, repeated lifting of heavy weights or other abnormally fatiguing motions, and the operation of mechanical devices requiring undue strength; exposure to excessive cold, or to dust, fumes, or other occupational poisons without adequate safeguards against disease.

Prohibition of employment of women in occupations involving the use of poisons which are proved to be more injurious to women than to men.

Prohibition of home work.

Establishment of systems of employment management.

Cooperation of workers in establishing standards.

In this group of standards there readily are found many recommendations which apply fully as strongly to men as to women. For instance, there is no indication that bad ventilation in a workshop is a more serious menace to women's health than to that of men, nor that it has any distinctive effect upon women. Insufficient ventilation will lower the efficiency and the ability to resist disease of both men and women, and it should be recognized as a problem for all employees in all industries under all conditions.

The prevention of glare by properly placing and shading lights is another working condition which is not particularly a woman's problem, but instead is a problem for all in industry.

#### SPECIALLY APPLIED TO WOMEN.

In fact, very few, if any, of these recommended standards can be said to apply only to women, and the Women's Bureau does not advocate that they should be considered as applying only to women. The important thing about them is that they apply *especially* to women. For all conditions in industry bear particularly heavily on women, and therefore good working conditions, hours, and wages have a more important relation to their health. Long hours in the factory are not as serious for the man, who is through work when he leaves his job at night, as they are for the woman who has often several hours of housework to do after she gets home. The married woman in industry, who is forced to work because of economic necessity, brought about by her husband's death, incapacity, or inability to earn an adequate wage for himself and his family, must usually take whatever job she can get, without too much question of wages or hours. But she is the one worker in all the group who most needs the protection of the law, for the care of her children and household will take many hours and much strength, and her health will suffer if hours of work are not limited.

Perhaps the greatest two health measures which industry can institute for all workers, but particularly for women who are not organized so that they can make their own demands, and who are massed in the low-paid industries, are the eight-hour day and the payment of a living wage. It has already been pointed out how the long hours are a special hardship for women, but the low wage paid to the average woman worker is an even greater menace to her health.

A recent investigation made by the Women's Bureau disclosed the fact that in the main industries in Kansas in 1919 and 1920 the median wage paid to women was \$11.95, with 20 per cent of the women earning an average weekly wage of less than \$9. The Ohio Council of Women and Children in Industry has found that 14 per cent of the women in that State were receiving in 1919 less than \$10 a week and 52 per cent less than \$15 a week. The Women's Bureau found that in 1920 half the women employed in the industries of Atlanta, Ga., were receiving less than \$11.70 a week. Conditions such as those exist throughout the industries where women are employed and the standard of living which a wage of around \$12 a week must require should certainly be recognized as a condition which will sap the health and vitality of a large group of workers.

This is particularly true when the woman worker is recognized as a provider not only for herself but frequently for dependents as well. The responsibilities of the wage-earning woman and her contribution to the support of others—mother, father, sisters, brothers, husband, children—have not yet received full recognition from industry or from the general public. Yet every investigation which touches wage-earning women piles up the evidence that women are working more often than not to eke out some husband's or father's insufficient wage and make it adequate for the family needs or to earn the wage which had formerly been earned by a husband or father who has died or been incapacitated.

#### THE PIN-MONEY FALLACY.

With this great necessity upon them for an adequate wage, women must struggle constantly against the old "pin-money" fallacy. A man feels that wife and children or other dependents are something of a burden, but he is recognized as the breadwinner, or the potential breadwinner, for a family group, his wages are based accordingly, and his burden is lightened. A woman may, and often does, have an equally heavy burden of dependents, but this burden is not made lighter for her by the popular superstition that she is working to make a little extra money and will soon get married and be on "easy street" for the rest of her life. The Women's Bureau hopes shortly to have comprehensive figures showing the extent of the responsibility for the support of others among wage-earning women. Even

before this material is prepared, however, there is ample evidence that this responsibility is much greater and more universal than is generally supposed.

Aside from hours and wages and general working conditions there are certain conditions in industry which need to be especially studied for their effects on the health of women so that proper regulations may be instituted for their control.

The very widespread use of the piecework system in industries where women are employed is a condition which is now challenging much attention. Nearly every manufacturer will say that he employs women most successfully on the repetitive processes in his plant, the processes that require an infinite number of rapid repetitions of the same movement such as placing small bits of metal under a press and releasing the press so that the metal is cut or hammered into shape; feeding machines which place the caps on tin cans, which means putting one tin can after another in the same place as fast as the hands can move; wrapping and packing cigarettes; or running an electrically driven sewing machine which makes two thousand or more stitches a minute. Such occupations, which are paid for by the number of finished articles turned out, naturally are carried on at full speed, in some cases under conditions of machinery or kind of work which require very careful attention. The pathological effect on the nerves and health of a woman of this continued tension and activity has never been definitely determined. Any casual observer of women working at these processes will know, however, that they must have pathological significance. Indeed, when girl after girl in a group of cigarette packers is found to be afflicted with a constant jerking or rhythmic motion of her body which follows the motions she makes while at work, resulting in extreme fatigue and nervousness, it would seem that the effect of the speeding up of pieceworkers in some occupations was so obvious as to need but little research to stamp it as being a serious menace. There is great need for careful and full examination of the effects of this system in order that it may be properly controlled.

Posture at work is another subject which has received insufficient attention, although the need of some regulation has been more generally recognized. It is very common to find State laws requiring that seats be provided for women who are employed in industry, but there has as yet been no definite standard established of the kind of seat that should be required. An old box with a plank nailed against it for a back, a high stool with no back and no foot rest, a barrel, a wooden kitchen chair, are some of the seats which are commonly found where women are employed. Many requests are made to the Women's Bureau by managers of factories for descriptions of the best type of factory chair for women, but so far no

investigation of the subject has been complete enough to warrant a definite recommendation. The fundamentals of proper seating, the need for a back, foot rest, rounded front to the seat, and individual adjustment, have been established, but there is still much which needs to be known from the medical end of the question before a complete seating "code" can be formulated.

Very little has been gathered of the effect upon women's health of continued standing or sitting. Standing, of course, has received more attention as its effects are more quickly noticed, but that sitting for 8, 9, or 10 hours a day can in itself be harmful is a new idea to many employers as well as to the workers themselves. It is quite possible in the majority of cases to regulate the height of work table and chair so that a worker may either sit or stand conveniently at work, but before such a treatment of the problems of posture can become general the need for it must be very strikingly illustrated by a definite account of the effect on a woman's health of too much standing and sitting.

An attempt has been made in several States to fix a standard weight which a woman may lift without harm to herself, but as this has been done with apparently little medical knowledge or study of the subject, the legislation is haphazard and may result in unnecessarily restricting the employment of women.

In Ohio and Pennsylvania a woman may not lift a core and core box the combined weight of which is more than 15 pounds. In New York women in the core rooms of foundries are prohibited from lifting more than 25 pounds. There is a very great difference between 15 and 25 pounds, and it is obvious that if 15 pounds is all that a woman can safely lift in Ohio and Pennsylvania, the women of New York are being permitted to endanger their health; while if 25 pounds is safe for a woman in New York to lift, the women of Pennsylvania and Ohio are being unnecessarily restricted in their work in core rooms.

There are so many ways in which a weight may be lifted—up or down, continuously or occasionally, pushed or pulled—and the way of doing it, whether with the arms or back, with a sudden effort which might wrench or strain, or with a careful coordination of all the muscles which can be brought into play, may vary so with each individual that the standard amount which can be lifted safely will be very difficult to arrive at. If any such restriction is to be imposed, it should be done only after a very careful examination of the effects of lifting and a very minute description of the surrounding conditions which would render the lifting of such a weight a menace to health. In this case, again, adequate testimony on the subject is totally lacking.

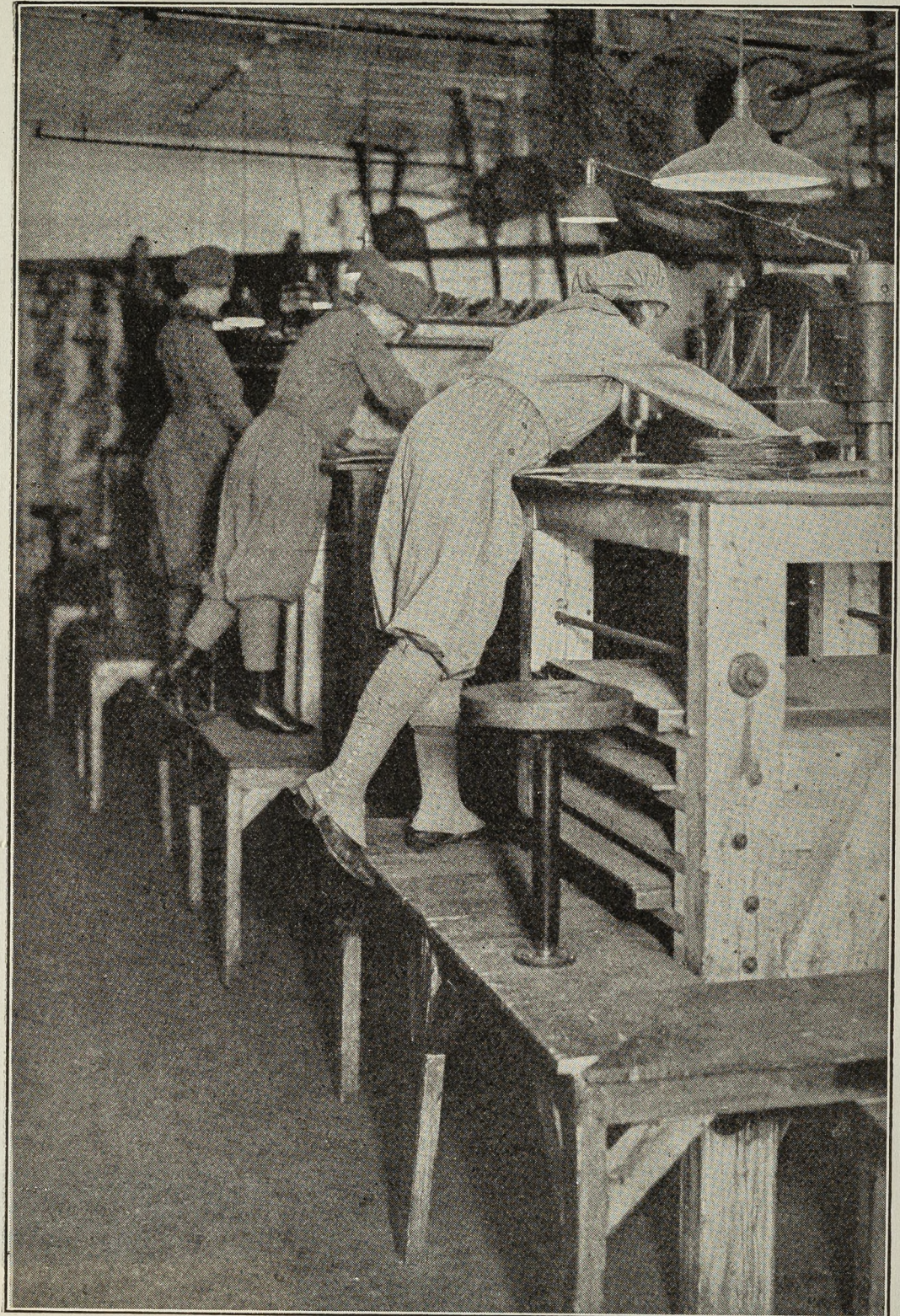
In addition to the more or less mechanical conditions, such as seating and lifting, which may affect the health of women, there is another and very broad field which research has hardly touched. This is the peculiar effect upon women of certain fumes and gases used in industrial processes. It has been established without doubt that the effect of lead poisoning incident to exposure to lead in the form of dust or fumes has a much more serious effect upon women than upon men. It is known that lead poisoning in women may result in sterility or in children being born dead, or in more of their babies dying during the first year of their lives. Such results have not been found in the case of men who have suffered from lead poisoning, and, because of this knowledge, in some States women are legitimately barred from employment in occupations where the danger of contracting lead poisoning is great.

It was only a careful study of a large number of cases of lead poisoning among men and women over a considerable period which produced the evidence which established the fact of the heightened susceptibility of women and its definite effects upon them. Women are working in many other occupations in which they are exposed to poisonous fumes and dust, but no evidence is yet forthcoming to show to what extent these elements are particularly dangerous to them, and without such evidence there can be no just and wise regulation of their employment.

The present day is hearing a great cry that women should be given equal opportunity with men for all occupations in all industry, but even the most ardent of these exponents of the new creed of feminists will pause before a presentation of the case for better protection of working women based on a scientific study of the effect on their health, and that of future generations, of exploitation, long hours, low wages, and improper working conditions. The women of to-day, as well as their employers, "come from Missouri." No sentimental or idealistic appeal will be sufficient for either of them now. They want facts, and if the facts are presented strongly and clearly they will get action. But the facts must be collected first, and the field is open and crying for attention from scientists and health experts as well as from industrial engineers.



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