Book Reviews

Women in industry: their health and efficiency. Anna M. Baetjer. (Issued under the auspices of the Division of Medical Sciences and the Division of Engineering and Industrial Research, National Research Council.) Philadelphia-London: W. B. Saunders, 1946. Pp. xi + 344. (Illustrated.) $4.00.

Over the period of the last 100 years there was a steady increase, both in absolute figures and relatively with respect to men, in the number of gainfully employed women. In the United States, by 1900, about 5,000,000 women were employed; in 1940 the number increased to 12,000,000. The trend has been accelerated by the war, the number reaching some 18,000,000 in 1945. A particularly marked increase occurred in the number of women employed in industry.

The personnel man, the production engineer, the industrial physician, the public health officer, and the insurance agent have become more acutely concerned with women's occupational fitness and with the effects of the industrial work on health. It was in response to this growing demand for a critical and systematic summary of available information on problems specifically connected with the employment of women in industry that Dr. Baetjer's book was written.

Most of the material is based on statistical data concerning such characteristics of industrial populations as sickness absenteeism, accidents, morbidity, and mortality. It is a well-established fact that men throughout the employable age range have a significantly higher mortality rate than women. However, the causative factors are not understood well enough to allow a safe prediction of changes in the mortality rate of women resulting from the increased industrial employment.

In contrast to mortality, women have a higher apparent morbidity. They are absent more frequently and lose more time. The yearly absences average from 7 to 11 days per woman as compared with 2 to 7 days per man. This difference in the incidence of absences reported and recorded as "sickness absenteeism" do not necessarily reflect a constitutional difference in the susceptibility to disease, *i.e.* differences which would be present if the accessory factors, such as the household duties of the women and financial responsibilities of the men, were equated.

The reported causes of sickness absenteeism in the great majority of instances are common to the two sexes, 50 per cent of absences being accounted for by respiratory diseases and 20 per cent by digestive diseases. Gynecological disturbances play a minor role; the loss of time due to dysmenorrhea is small and can be further reduced by appropriate methods. Pregnancy definitely limits the capacity for heavy work and increases the danger of exposure to toxic factors, such as lead. Beyond these facts no generalization can be made, and the continued employment of a pregnant employee is essentially an individual medical problem.

Except for the effect of some toxic agents in pregnancy, there is no adequate evidence that women have a greater susceptibility to occupational diseases than men. Industrial accidents do not contribute significantly to women's absenteeism; the lower rate of industrial accidents of women as compared with men is attributable to a difference in exposure.

In reference to women's physical "fitness" the following mean values are quoted, expressed as percentages of the men's mean: height, 93; weight, 81; pull, 51; and grip, 53 per cent. Even though the interindividual differences between women are great and can be utilized in the process of scientific placement, the employment of large numbers of women should lead to a redesigning of the work place, machines, and tools. Although the author reports, with special reference to women's record in World War II, that properly trained women were essentially equal to men in all types of industrial activities, except for their handicap in heavy work, and were especially capable at jobs requiring manual dexterity and fine coordination, the statistics are singularly absent.

The basic philosophy of the book is sound. It places emphasis on proper selection, placement, training, and supervision. An adequate placement is one of the key points in an efficient utilization of man power. It involves a skillful appraisal of the physical, mental, and emotional characteristics of the applicants and requires a close coordination between the medical and the personnel department. Dr. Baetjer does not point out the inadequacy of the present methods of medical diagnosis of occupational fitness and the dearth of follow-up studies necessary for the clarification of the relationship between pre-employment "fitness," production efficiency, and effects of work on health.

This review represents a useful summary of an important sector of the science of human work. Its value consists as much in the able and critical sifting of the available and often contradictory data as in pointing out, directly and indirectly, the large gaps in our knowledge about the interrelationships between health and industrial work. In addition to group statistics there is an urgent need for information obtained by means of controlled observation and experimental analysis.

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Enzymes and their role in wheat technology. J. Ansel Anderson. (Ed.) (American Association of Cereal Chemists Monogr. Ser., Vol. I.) New York: Interscience Publishers, 1946. Pp. ix + 371. (Illustrated.) $4.50.

This volume represents the efforts of two distinct types of research workers, the academic and the industrial. In general design it consists of a systematic review of five major enzyme fields, each of which is first reviewed as a whole and then, in a second chapter, related to wheat technology. Although designed primarily for grain specialists, the book has a far wider appeal, providing, as it does, comprehensive reviews on various branches of enzymology, including amylases, esterases, respiratory enzymes, proteases, and fermentative enzymes.

Half of the book, then, is unrelated to wheat technology and