

he has presented, first, of the need of education in industry, and, second, of some of the many forms in which such opportunities are made available to the workers.

The book is based on a wide study of the subject. As the author says, "It does not cover the field but gives an idea of what it is like." Quite evidently that is all that is practicable but it is at the same time sufficient to evaluate the extent to which management is performing its teaching function.

The main premise of the book is that some training is necessary for "industry, even machine industry, does require skilled men." The author then examines in some detail a number of ways in which training is provided, giving the names of the concerns or associations. His manner of illustrating his points by taking specific cases is very satisfactory.

The discussion is first centered around the prevalent idea that the workers should be taught by their foremen, which means that the foremen must first be taught how to teach and then be followed up to see that they do it. The methods of the Western Electric Company, the New York Telephone Company, the Standard Oil Companies, R. H. Macy & Co., Inc., the Equitable Life Assurance Society are among some of those discussed. The point is brought out very definitely that there is no standard for all concerns but that each must develop the method which applies best to its own conditions.

Mr. Peffer's interesting way of presenting his findings is nowhere better illustrated than in explaining the experience of W. F. Schrafft & Sons, beginning on page 98. He tells how this company has a labor turn-over of 5 per cent when the average for candy manufacturers is more nearly 150 per cent. Here the workers are permitted to go to school while working, either in continuation classes or on the basis of one week in school and one week of work. Care is taken that the school work has no relation to the factory work. The results are much better, in this company at least, than when direct training for the job is given. By taking up striking experiences like this at various points in his discussion the author not only makes what he has to say very interesting, but also shows that in dealing with the human equation the unexpected and unorthodox is always happening, so that it is never safe to be dogmatic.

Of course the formal schools such as those of Westinghouse and Ford receive attention and the joint efforts through associations such as the American Institute of Banking, the National Metal Trades Association and others are described. Public trade schools as conducted in different states are described and it is surprising how much they differ in different sections of the country. Undoubtedly the most original, and perhaps the most promising is the "Denver Opportunity School." Providing the means of adjusting the emergent adult to his job is as much a part of education as teaching him reading and writing is their belief.

In conclusion it is pointed out that "for the great bulk of industrial and commercial workers nothing is done by way of education by the corporations or individuals who employ them."

Much of the existing work is done in the dark, showing a great need for careful study.

FRANCIS A. WESTBROOK¹⁹

Labor Agreements in Coal Mines. By Louis Bloch, Russell Sage Foundation, New York, 1931, pages 513.

To me the most significant thing about this book is the fact that it substantiates the studies that have already been made about the possible stability of the administration of labor agreements as reflected also in the men's clothing industry and among the railroad workers. This book is an intensive study of the administration of collective bargaining in the bituminous coal industry in Illinois. And as such it offers conclusive evidence that under wise and patient handling, it is possible to build up a method of negotiation and a set of working principles and precedents that will enable collective agreements to stabilize employment relations, even in an industry where working processes and conditions are highly complex. This book sustains the contention which many students of industrial relations have long advocated, namely, that it is possible without an excessive addition to overhead to build up a machinery for administering the relations between organized employers and organized employes in a way that makes a genuine and effective fact out of the phrase, industrial government.

In an industry as disorganized as bituminous coal in this country today, it is gratifying to see what can be done in the orderly conduct of labor relations even in one small segment of the industry. It should offer an object lesson as to the ways and means by which, under a strong national body of employers and of workers, it would be possible to apply such a plan to a more comprehensive scheme of industrial government for the entire industry.

ORDWAY TEAD²⁰

Industrial Hygiene for Engineers and Managers. By Carey P. McCord, M.D., Harper & Brothers, New York, 1931, pages x, 336.

It is unusual for the material, included in this volume, to be reviewed in such a way that factory executives with its assistance can form their own opinion on the problems of industrial hygiene for their employes. This is possible because of the able manner in which the material has been classified and presented. The medical and technical questions are made elementary, the stress being made on factory systems, which are recommended to be directed, if possible, by technically trained men. The necessary qualifications and duties of these men, particularly the physicians, are so well described that any one man's usefulness to industry could be adequately estimated. There is a wealth of information, which has been industriously collected from recognized sources, on the problems, which are new to most industries, such as industrial fatigue, human conservation and utilization of handicapped men. These subjects, of great importance to industries, have had so little literary comment in such publications as factory executives ordinarily see

¹⁹Consulting Engineer, Center Conway, N. H.

that this could well be reviewed by any executive, personnel director or engineer to great advantage.

There is included in this book a list of 507 materials used in industry, which produce occupational disease hazards together with the symptoms and results of exposure. It is arranged in such a manner that any manufacturing material can readily be investigated for the purpose of providing protection. The trades are cross referenced in order that a man unfamiliar with investigating these hazards can readily find out what exposures are dangerous to his men. Standards are also given for such ordinary factory safety and hygienic problems as sanitation, drinking water, stairways and steps, cafeterias, washing and bathing facilities, light, ventilation, heat, mutual benefit associations, etc.

In conclusion, it seems that while the book is of value as a reference book to check on conditions already present in the plant, its greatest value to the engineers and managers for whom it is written is to demonstrate to them the advance in industrial hygiene and to set a high standard for further practice and in doing so to improve the environment of the workers as well as to give them the opportunity to live happily and enjoy the fruits of their labors by knowing more about themselves through investigation and advice by the employer.

WILLIS C. TEMPLER, M.D.²¹

Medical Supervision and Service in Industry. National Industrial Conference Board, Inc. New York, 1931, pages xi, 125.

The Conference Board performs a valuable service in keeping up to date its studies of medical service in industry and it is especially useful that the present study should emphasize the development of this type of work in small plants where the problem has, until recently, been relatively ignored. It is gratifying to see the trend toward fewer rejections, more preventive work, increase in the amount of periodical re-examination and increase in the time taken per examination. The average cost per employe has also continued to rise, indicating an extension of the services made available.

Any company operating a medical department or contemplating this will find this study of great practical service. Industrialists too often tend to forget that sickness appears to account for at least two or three times as much lost time in industry as accidents.

ORDWAY TEAD²²

Education for Business. By Leverett S. Lyon, The University of Chicago Press, Chicago, 1931, pages xvi, 586.

An immediate reaction of satisfaction and enthusiasm was experienced in reading this well-directed discussion of education for business. The unquestioned need of a research of this nature has been largely fulfilled by Mr. Lyon's splendid work, his frank discussion of present-day curricula, and his approach to the solution of educational problems is so

²¹Medical Director, Corning Glass Works, Corning, N. Y.

well done that this volume should unquestionably be not only useful but almost necessary in the arrangement of both high-school and college courses.

The simple but well-worded style should appeal to the student of business and of business education as so often similar volumes are so technically involved that the average student loses a large part of the value of the book.

The profusion of tables and charts gives proof of the excellent work of assembling the essential data and is helpful to the reader in quickly grasping the subject matter.

The analysis of the history of education and its application to present-day education is especially well done and the recognition of the value of the business college, the correspondence and the commerce schools, both in advantages and shortcomings, is refreshing.

The discussion of "Company Training" is candid and faces the advantages and scope squarely in a way that is not often encountered. Due credit is given to corporation education. Also the quantity of information gathered on the real demand of education for business indicates the author's appreciation of business needs and overcomes the usual one-sided theoretical discussion.

The summary of "what shall be done" is without a doubt the best approach to the solution of the problems of education that the reviewer has encountered. Present business conditions indicate the need for a renewed interest in education and certain educational policies. This has been largely anticipated by the author and the serious consideration of these suggestions and the information presented by this volume should be used in the much needed reorganization of educational methods.

M. M. BORING²³

Education for Business Management. By James A. Bowie, Oxford University Press, Oxford, 1930, pages viii, 200.

In his book, "Education for Business Management," Professor Bowie has outlined what he believes to be the place of the study of business management in the educational program of the institutions of higher learning. His views are well summarized by the statement that "only if industry is exhibited in its social setting can it be administered as a serious study for youth."

The author analyzes the changes that have taken place in the structure of business and industry during the past decade and suggests certain essential qualities of leadership which are necessary for the successful manager of tomorrow. He then offers the bases of an educational plan which will enable the school to give the greatest assistance in the training of these new executives. His proposals are well illustrated by the following quotation.

The purpose of industrial education is to enable those who receive it to sustain their part in the national life, in forming public opinion, and in showing example and wisdom and a generous spirit in their economic life. Industry

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