

In the body of the treatise each industry is taken up separately, and the following facts presented:

1. The census designation of the industry and a short description of manufacturing processes.

2. The computed monthly index of seasonal variation in employment (in relative form).

3. The graph of the seasonal index showing the yearly pattern of employment.

4. A subgraph showing the dispersion of the individual seasonal relatives about the seasonal index.

5. A descriptive statement of the monthly seasonal changes.

6. A comparison with similar studies of employment previously made where the industrial divisions were similar.

In the concluding chapter the author presents an interesting estimate of the amount of unemployment resulting from seasonal fluctuations (p. 183). He concludes that the industries examined have "an annual labor turnover of 14 per cent as a result of seasonal factors." He submits some evidence to the effect that those industries employing a larger percentage of female workers have, probably, a lower seasonal range in number of employees. His figures also seem to indicate that enterprises with a larger number of employees have a tendency toward a lower seasonal range in employment.

The form of presentation is such that an individual manufacturing concern can pick out the charts which apply to its own situation. The organization and arrangement have a unity that is of great value. Criticism, however, may be ventured on the ground that the causes of seasonal fluctuation are not analyzed with sufficient thoroughness. The reviewer hopes that, in a subsequent study, Mr. Bursk will attempt to remedy this deficiency.

CHARLES S. TIPPETTS<sup>10</sup>

*Personnel Problems.* By Felix E. Baridon and Earl H. Loomis, McGraw-Hill Book Company, Inc., New York and London, 1931, pages x, 452.

This book presents a distinctive difference from many others on the subject of personnel administration. Its material is more selective, more carefully organized and more particularly useful.

These results automatically flow from the clear-cut and restricted aim of the authors to provide "guidance in the method of attacking" the major personnel problems common to all employers. Instead, then, of a sea of data in which the reader is too likely to find himself adrift, Mr. Baridon and Mr. Loomis have made available a "road map for the personnel fraternity in considering the route to a specific destination."

Eight general problems, presented by Employment, Remuneration, Maintenance of Working Force and other aspects of personnel work, constitute the framework of this book. Each is stated in terms of a two-fold objective, that of management on the one hand and human relations on the other. For example, the general problem of Employment is stated thus: "To secure the right kind of employees for the jobs to be filled—to place new employees in the work for which they are best suited," and that of Employee Progress: "To meet the job requirements of the company by adapting the personnel

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available—to assist employees to secure the full benefit of their potentialities."

The discussion of most of these eight general problems follows a standard pattern composed of the following five topics: (1) types of minor problems that arise in attaining the stated objective, (2) sources of data that are available as aids in the solution of the minor problems, (3) means of gathering or maintaining the data, (4) use of such data in shedding light on the solution, (5) precautions to be observed in the use of personnel data.

As may be inferred from these topics, the text abounds in suggested definitions, classifications of data for various purposes, forms and formulae.

As for the writing, it is succinct, clear and generous in its use of outlines.

All in all, "Personnel Problems" most adequately meets the objectives set for it by its authors. More than this can be expected of no technical book. To Mr. Baridon and Mr. Loomis the solution of the personnel problems inherent in present-day industry is dependent first and foremost upon competent analysis and control. Finding in connection with their own work no satisfactory publication on the "how" of securing such analysis and control, they decided to produce one themselves. In doing so they undoubtedly have made available to the reader the results of their own very real experience.

MARY LA DAME<sup>11</sup>

*Readings in Industrial Psychology.* By Bruce V. Moore and George W. Hartmann, D. Appleton and Company, New York, 1931, pages xxxix, 560.

*A Scientific Approach to Labor Problems.* By Adelbert Ford, McGraw-Hill Book Company, New York, 1931, pages x, 446.

The growing literature on the application of psychology to industry is a most promising feature of the past decade. It is, of course, obvious that here as elsewhere there is a tendency to get aboard the bandwagon as it goes by. The personnel movement took over the welfare movement and now it looks as though industrial psychology showed signs of taking over personnel administration.

The above two books cover much the same ground, though the method of presentation is quite different. The former consists of excerpts from over one hundred different authors, several of them frequently quoted, while the latter work is the writing of a single person based on his own research as well as that of others. Both books have arranged the subject matter generally in the sequence from the selection of an employee through his various experiences of interview, testing, placement, training, fatigue, monotony, maladjustment, etc. The Moore and Hartmann book concludes with a section on advertising and sales psychology as well.

Moore and Hartmann have, as they say, refrained from emphasizing one point of view; their basic idea was to produce a text showing the general scope of industrial psychology. But the limits of their conception of this applied

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science have been extended sufficiently to include many employment-office and personnel practices.

Ford's book is more definitely a work on the techniques of labor administration and the last half of it devotes attention entirely to the use of statistics as a tool in what the Germans more adequately call the psycho-technics of industry.

For this reviewer, however, both works raise the question of the fundamental content of an industrial psychology and the features of a pure-science psychology it is to apply. It stretches matters somewhat to call our little testings and samplings "psychology" and the subjective content of our questionnaires and ratings hardly merits their being called "scientific." It is true that both of these volumes are best in such well established studies as fatigue and monotony, and no doubt there is good methodological reason for this. But the content of industrial psychology when left to the "dictates of empirical science" is bound to be uneven and variegated.

Particularistic approaches, though they may lead to excellent work in isolated phases, can never give us a completed picture of a whole; that is, the human being in industry. Just as Elton Mayo has so frequently mentioned the "total situation" for any particular study or research project, it must be considered that there is a total situation for the whole science of industrial psychology. Our particular researches get their premises out of the immediate needs of a situation, say greater production, but a psychology for industry as a whole cannot be bound by the immediate fashion in economics; it must go deeper into a more universal economy.

JOHN J. HADER<sup>12</sup>

*Human Engineering.* By Harry Myers, M.D., Harper & Brothers, New York and London, 1932, pages viii, 318.

*Workers' Emotions in Shop and Home.* By Rexford B. Hersey, Research Studies, XVIII, Industrial Research Department, Wharton School of Finance and Commerce, University of Pennsylvania Press, Philadelphia, 1932, pages xviii, 441.

These two books represent very different types of literature purporting to deal with human engineering.

That broad field is defined by the author of the first book as "the generation, the transmission and the application of power." But in this analogy to mechanical engineering he seems to overlook the fact that the latter is based upon a scientific study of the laws underlying phenomena with which it deals. His book, which is reminiscent and anecdotal in method, adds little to scientific knowledge of the generation, transmission and application of human power.

The ease with which it disposes of difficult problems is exemplified by his main thesis: "If everyone did his work right and managed his affairs properly, everybody would have all the money he really needs, and the world would be rid of much of its sickness, most of its accidents, and all of its burdensome debts and poverty." The rest of the book rings changes upon the proposition that doing one's work right consists of adhering to the following six rules, typical of the author's style and point of view:

1. Be clean and orderly.
2. Take good care of property, equipment and materials.
3. Follow instructions carefully and continually.
4. Work well from starting to closing time.
5. Work every day and tell your boss when you cannot.
6. Work well with others.

Mr. Hersey's book, in contrast, shows that the objective, questioning attitude of the physical scientist can be applied to the study of human work. Starting out with preconceptions he went into a repair shop of the Pennsylvania Railroad Company to study, by means of observation, interviews and laboratory measurement the actual day-by-day functioning of a group of workers in their job environment.

The report of this study is divided into three parts: Part I, an introduction describing the purpose of the investigation and the shop in which it was conducted; Part II, case stories of the eleven individuals studied most completely; and Part III, tentative conclusions as to relations between happiness and work. There is an appendix of interest to investigators in this field, giving the methods, detailed tables of data and a bibliography of about a hundred references.

The significant contributions of the study are the methodology and the evidence of cyclical variations in workers' emotions, not dependent on external conditions, but affecting zest for work and productivity. Mr. Hersey suggests that these fluctuations throw doubt on the advisability of demanding a mechanical regularity in production (Dr. Myer's rule 4) or 100 per cent attendance (Dr. Myer's rule 5).

Instead of setting up six rules of good work, Mr. Hersey suggests, on the basis of his analysis of individual workers, a series of factors involved in satisfactory adjustment of work, home and play. These are: a congenial job; sound working conditions; security; satisfactory remuneration; justice, equality and independence; understanding and efficient supervision; favorable personality factors; co-operation and consideration within the family circle; ability to live within income; variety and change (a little excitement); sane and healthful recreation; and satisfactory sex relationship.

His generalizations of course require verification with further cases, and it is to be hoped that it will be possible to study further the correlations between the conclusions from observation and interviews and such data as physiological measurements and scores in standard tests and questionnaires.

The book is carefully and clearly written, and very readable. It should prove of interest to all who are desirous of working out a foundation of scientific information for the practice of human engineering.

ELEANOR G. HAYES<sup>13</sup>

*Educational Experiments in Industry.* By Nathaniel Peffer, The Macmillan Company, New York, 1932, pages 207.

In his "Educational Experiments in Industry" there can be no doubt that Mr. Peffer has performed a valuable service to industrial management by the clear and concise outline

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