

of fatigue and its elimination, vocational selection, scientific management problems, the nature of industrial unrest, problems of monotony, and a brief critical consideration of the various plans of industrial reorganization from the point of view of the opportunity they offer the rank and file of humanity for satisfactory self-expression and personal happiness.

Until some American psychologist can mobilize American experience and American thinking on these problems into a first-rate industrial psychology, Professor Watts' book will stand as the indispensable contribution to this field which no serious student of the managerial science on its psychological side can be without.

The objection to literature of this type will, of course, be made that it is merely putting into high-sounding language an emphasis upon a humanistic and personal attitude toward management problems which is already being urged by those who realize the importance of the personnel aspects of the administrative science. Yet in reality, more than this human attitude is provided and reinforced by industrial psychology, because in the handling of problems of selection, training, monotony, leadership, morale-building and the like, psychological knowledge points the way to a definite effective technique. To be sure, Professor Watts does not offer a presentation of adequate technique on all these subjects, but he makes a better start toward this than any other writer has yet done.

ORDWAY TEAB.¹

Labor Attitudes and Problems. By W. E. Atkins and H. D. Lasswell, Prentice-Hall, Inc., New York, 1924, pp. 520.

As we make advances in science it becomes obvious that the problems over which we studied hard and long could have been solved with ease had we then had the knowledge we now possess. In many cases we have had the cart before the horse, and although we finally solved the problem we were late in making our decision, in fact in many instances too late. Why? Because we did not get at the fundamentals. One must creep before he walks and walk before he runs. So it is with science, and the handling of labor with all of its ramifications is a science.

The authors, when they said of this work, "It is an attempt to understand the worker from an economic standpoint, what he does, how he lives, what he thinks, in brief to get at his attitudes," hit the nail on the head insofar as labor problems are concerned except they should have added in substance, "and learn the reasons for these attitudes." For until we learn the attitudes and the reasons for them we are not in a position to deal intelligently with the problem. The tendency has been, and in some quarters still is, to give more attention to machinery than to men, and only in recent years has the man problem been given anything like the attention and study it deserves.

In this most commendable work of approximately 500 pages the authors have in simple, readable, easily under-

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stood and well chosen language gone to the soil beneath the roots of the plant to get at the problems of the plant growth and development. For the student the book is the best of its kind I have seen, and is also of great value to those actively engaged in industrial relations work, for although it may not contain so much that is new to the experienced it is so arranged as to be interesting as well as valuable for reference and study. The practical questions at the end of each chapter serve to promote right thinking along the line of industrial problems of daily occurrence.

The book contains a logical presentation of fundamental facts along the lines of environment, standards of living, etc., of both skilled and unskilled, male and female operators in many lines of endeavor, including coal miners, steel workers, agricultural groups, clothing workers and casual laborers; also an illuminating description of the development of the machine industry and its effect on economic conditions. It treats fairly and impartially of the subject of unionism, its extent, organization, policies and tactics, as well as underlying forces and struggle for status. One chapter is devoted to the live subject of unemployment, its history and remedies.

The concluding chapters deal with "the assertion of public interests" under the following headings: 1. Arousing community action; 2. Mechanism of public control; 3. The objectives of community action, thus recognizing that the community is an essential party to industry. All in all, the authors have presented a practical work in a practical way for the use of the practical man as well as the student.

EDGAR D. SEBRING.²

Factory Management. By Henry Post Dutton,³ The Macmillan Company, New York, 1924, pp. 329.

In his preface, the author of this book says: ". . . It has been the author's purpose to give as nearly as might be, a balanced description of the operation of the various departments of the factory, to show their relation to each other and their problems as part of the greater problem of coordinating all activities of the organization toward the accomplishment of the single general purpose." That he has succeeded in accomplishing his purpose will undoubtedly be the opinion of the large majority of his readers.

The book is well balanced and the relationship of the various elements and functions that enter into and are concerned with the conducting of an industrial enterprise is nicely established. Furthermore, there is a wise exposition of the principles upon which this relationship depends, accompanied by examples and descriptions of the methods to show how these principles are made effective.

"Factory Management" is not an exhaustive treatment of the subject, and probably the author did not intend it to be. Therein lies its value. If one wishes to learn in detail of

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the work of the purchasing agent or the personnel director, or the job of plant arrangement and layout, or expects to find ready-made a system of production control worked out to the last item, let him turn elsewhere. If one reads the chapter, "Time and Motion Study," and intends thereby to become fitted for time study work, he will indeed be ill equipped for the job, but he will have secured an appreciation of what the job calls for and how it should be approached, of the part that time study plays in manufacturing, of the necessity of control of auxiliary functions, and an understanding of how in general, studies are made and standard tasks determined. Such is the treatment the author gives to most of his chapters. The result is the painting of a background, the statement of fundamentals that lie behind good management, but that to be completed in detail must be supplemented by additional study.

The development of the book is based on the philosophy that control is the key to successful management. Each problem has been approached from that point of view, and the various methods and theories pertaining thereto have been brought together and application made. His choice of examples of methods of control and illustrations of these was apparently based on simplicity and clarity. They show sufficient detail and yet are not encumbered with the unusual. They fairly represent the average situation.

Production Control constitutes the major portion of the book. In fact, sixteen out of the nineteen chapters cover subjects that deal directly with production or are closely allied functions, such as accounting, personnel work, purchasing, etc. The other three chapters cover financing, selling, and organization and executive control. These last briefly indicate the jobs of financing and selling as well as the relation they bear to the job of producing, and the problems of general organization and administration.

The other chapters deal with manufacturing design, plant and equipment, layout, time and motion study, purchasing, stores, planning, scheduling, types and plans of production control, accounting and costs, supervision and inspection, personnel, wage payment, and industrial relations. In each instance the functions of the departments, or elements of the factors under discussion, are defined in terms of the job itself, but throughout is woven the thread of control and each is shown to have its part in the general scheme of control.

In addition to the text, Mr. Dutton has made a valuable contribution to teachers of management by the development of a series of problems so set up as to apply to the various chapters of the text. These cover practically all the phases of management discussed by the author and in the main refer to the operations of a single organization making a simple product, so that there is a coherence and uniformity of purpose throughout.

In conclusion, the book should recommend itself to those who desire a simple and easily understood survey of the factors that make for control of the various operations within a manufacturing enterprise.

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Planned Control in Manufacturing. By William O. Lichtner,² The Ronald Press Company, New York, 1924, pp. 329.

This book is a companion volume to Mr. Lichtner's previous volume on "Time Study and Job Analysis." The earlier volume deals with the steps involved in investigation and standardization. This new volume deals with the office and administrative sides of planning and control.

Mr. Lichtner's two volumes, taken together, constitute a most complete presentation of the "how" and "why" of Taylor philosophy and systems of management as evolved within recent years to meet conditions and methods of present-day administration. Although abounding in cases and examples adapted to the small as well as the large undertaking, the author is careful to repeat frequently that the methods and forms cited must not be considered as fixed or arbitrary.

The engineer or executive engaged in production will find in these two volumes of Lichtner's much that is needed to fill in the gaps left vacant in Taylor's "Shop Management," and in the writings of subsequent authors. That Thompson and Lichtner are engineers of long standing and that they have successfully introduced the methods described during a period of many years are in themselves a guarantee of the practicability of the philosophy, policies, and methods enumerated.

The following extracts from the book are indicative of the manner of treatment.

"Planning is the managerial function of working out the best combination of procedures through coordinating the requirements with the facilities for carrying out the work of the division. Control is the managerial function of putting these procedures into effect. The combination of planning and control forms a function which is necessary to, and links together, each of the four divisions.

"The term 'scientific management' is used in this book to characterize that form of organization or procedure which results from thorough investigation of manual and machine processes, materials, tools, equipment, and physical and psychological operating conditions—thereby making it possible to establish a basis of principles and laws which standardizes operations and provides for instruction in new methods of execution and which develops and maintains precise and automatic control, including the organization of the personnel, the processes, the materials, and the equipment in such functional cooperative relations as will utilize the highest technical skill available and capable of development in planning, supervising, and executing.

"This definition divides scientific management into two distinct phases—the first is job standardization; the second is planned control. Both are equally important. Neither in theory nor in practice can one be completely divorced from the other without serious loss. They are inseparable in the ideal conduct of any manufacturing enterprise. Under planning and control the first crude standards are set.

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