

summarize developments in industrial education and industrial welfare work.

Professor Shields gives the reader in some measure a perspective of what has happened for several past generations. He assembles the gist of many specialized books, documents, and legislation, and his style is smooth. All this is valuable in its way, and perhaps that is all that should be expected in a book of this title.

To the reviewer, however, mere historical description seems inadequate. In organizing for more efficient production what have we learned to aid us to an organization for better distribution of commodities and income? In a book entitled "The Evolution of Industrial Organization," it would seem appropriate to give more attention (1) to pending organizational problems of industrial statesmanship—another term for the currently fashionable "economic planning"—and (2) to needed adaptations of our cherished institutions of private property, profits and "rugged individualism."

E. W. MOREHOUSE\*

*Efficiency and Scarcity Profits.* By Clarence J. Forman, The University of Chicago Press, Chicago, 1930, pages xi; 343.

This book by Dr. Forman, Associate Professor of Economics at the University of Cincinnati, is not for the entertainment of the general reader in a leisure hour. In the Baconian classification it is a work to be chewed and digested. Unless the reader has the teeth and stomach of a theoretical economist probably he will masticate it imperfectly and his digestive processes fail to utilize all the nutriment. Indeed, he should be a ruminant and chew the cud.

But economic problems are tough. They are not materials for the tabloids, however much politicians and the populace discuss them as though they were. Let us get to the book. "This treatise," the author says in his conclusion, "is dedicated to the theory that the plane of competition should be preserved in American law and industry." And "Men must be converted to the cause of a rational competitive plane, be brought to see the crying need for the competitive principle, and be induced to take up the burden of seeing it established." The economic beliefs of the reviewer are so entirely in accord with this theory that he feels the book especially timely in this period of business depression when many minds entertain thoughts of economic planning without bringing to the formulation of their ideas the kind of analysis which this work shows.

Professor Forman considers the economic process in connection with the social instrument of the law through which the process is carried on. The endeavor to deal with aspects of the social organism as though those aspects were things in their entirety has perhaps reached the limits of its potentiality in approaching truth. Professor Forman adopts a newer and promising method. It is in line with the "Economic Foundations of Capitalism" by Professor Commons, who contributes a foreword to this book. Though one feels that the method has not yet been completely mastered, those who pursue it deserve praise for their courageous pioneering endeavor.

Chapter headings indicate the course of the discussion. They

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are: (1) Introduction, (2) The Residual Surplus, (3) Dynamic Efficiency, (4) Profits of Efficiency, (5) A Contrast in Efficiency Profits, (6) Legal Profits of Efficiency, (7) Contractual Growth of Unearned Profits, (8) Profits of Exploitation, (9) Economics and Profits of Good-Will, (10), Computation of Good-Will Profits, (11) Conflicting Theories of Good-Will, (12) Legal Theories of Profit, (13) Similar Division Among Theorists, (14) A Synthesis of Elements, (15) Conclusion.

The author writes of scientific management to the extent of four and a half pages under the chapter "Profits of Exploitation." In spite of this classification the treatment is not at all hostile. He simply concludes that scientific management needs integration into the working out of that better competitive system which he desires.

HASTINGS LYON\*

*The Successful Control of Profits.* By Walter Rautenstrauch, B. C. Forbes Publishing Company, New York, 1930, pages xvi, 239.

Like most business books of recent years, the publishers have selected an intriguing title that gives one little knowledge of what the book contains. If titles of this kind are necessary to awaken the imagination and interest of business executives, a more descriptive subtitle should be used.

Mr. Rautenstrauch's book covers all phases of cost and financial control for a manufacturing company. He outlines in detail the generally approved methods of today, intersperses frequent and sufficient examples to explain and amplify the text and also includes a few less generally known but effective methods of production cost control.

It is a book that will appeal to the student and junior executive as well as to senior business executives. At first reading it would appear that the author has tried to cover too much ground in one volume but the inter-relationships of the different chapter subjects is handled very carefully, so that one can read the book through consecutively or pick chapters for their pertinent interest.

"The Successful Control of Profits" has a preface by William C. Dickerman, president, American Locomotive Company, and an introduction by the author.

Chapter I, "Business in General," and Chapter II, "Business in Particular," deal with general economic and business situations and are necessarily broad and general in character. Emphasis is given to the character of the product, with relationship to consumption and manufacture.

Chapter III, "The Cost of Manufacturing the Product," treats with factory costs and expense distribution. The author speaks of the difficulty in terminology in discussing costs and defines his terms in simple language. The different methods of expense distributions with the pros and cons of each are brought out clearly.

Chapter IV, "The True Character of a Business and Its Relation to Costs," is summed up by the author in his statements, "The problem therefore for any particular business is to determine the proper balance of all factors which

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enter into the cost of doing business and to adjust these varying conditions of sales demand and price fluctuations which arise from time to time," and, "The characteristics of a business must first be determined before it can be controlled."

Chapter V, "The Economic Characteristics of Manufacturing Enterprises," discusses variable and fixed costs and the development and use of "break-even" charts. This chapter would serve as a good handbook on "break-even" charts and their interpretation.

Chapter VI, "The Balance Sheet," and Chapter VII, "Measuring the Results of Operations," discuss the interpretation of balance sheets and profit and loss statements and introduce subsidiary operating statements, including a method of the author in "Measuring Operations in Terms of the Unit Man Employed at Direct Labor."

Chapter VIII, "The Budget," is comprehensive but too brief, although the author states in Chapter IX, "The Future," which concludes the book, "If I should pick out any one principle to be followed, I would pick out the principle of the budget as the most productive of all."

The "Successful Control of Profits" belongs in one's business library.

C. L. BARNUM\*

*The Art of Business Reasoning.* By H. G. Schmackel, John Wiley & Sons, Inc., New York, 1930, pages xxvii, 327.

This book is designed to supplement the author's earlier book, "The Art of Business Thinking." Special attention is paid to the value and methods of fact collection in relation to reasoning. The discussion of the tests of reasoning is interesting. And the reminders of the causes of errors in reasoning are suggestive. Much space is devoted to a presentation of the material usually found in texts on formal logic. Absence of illustrations and examples of the reasoning methods discussed is a real lack from the point of view of the business reader's use of the volume.

ORBWAY TEAD†

*Quantity and Economy in Manufacture.* By Fairfield E. Raymond, McGraw-Hill Book Company, Inc., New York and London, 1931, pages xiii, 375.

This book is intended for that manufacturing planning executive who has to determine for each design of product that is processed in his factory the most advantageous size of manufacturing lot to process at one time. It deals not only with those factors that make for economy of those planning and preparation costs that are incurred but once for each lot and for each batch, but also with all those other costs and financial burdens, or disadvantages, that increase rather than decrease as the size of lot is enlarged. One of the most important of the latter is the increasing investment in goods in process and in finished goods and parts in stock, the slowing down of the turnover of the investment in these goods, and what may be called the interest loss attendant thereon or the tendency to minimize the rate of return on the increasing investment. Each factor is represented by a symbol; and the author's objective was to develop an improved formula that the planning

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executive could apply to the measured facts relating to each specific design of product in order to determine for it the best size of manufacturing lot, all important factors considered.

A more definite idea of the problem dealt with by the author may be conveyed by an illustration out of the reviewer's experience. In a certain handkerchief factory, handkerchiefs were cut from the cloth in lots of about 2,000 dozens each; women's handkerchiefs were sent through the subsequent operations in batches (sub-lots) of 100 dozens, men's handkerchiefs in batches of 50 dozens, each. At each work place, as soon as work was started on one batch, another batch was delivered at the work-ahead position.

Now, consider the effect upon the investment in women's handkerchiefs in process. Of course, with any size of batch the investment increases as the batch progresses through operation after operation. If each handkerchief could practically progress individually, moving, as soon as one operation was completed, to and into the next operation, the handkerchief would become a finished product and the investment in it could be turned over and recovered through sale, delivery and collection, in the minimum time. Moving in batches of 100 dozens each with another 100 dozens waiting at each work place, the duration of the investment at each work place is multiplied by 2,400. This is a tremendous slowing down of the rate of turnover of the investment in goods in process. Furthermore, it also involves a tremendous multiplication of the amount of the investment in goods in process, to say nothing concerning the multiplication of investment in land, buildings and equipment for storage space.

It is not practical, however, to process each handkerchief individually. There is much planning to be done before each lot and batch can enter the first operation; there is the work of moving product from the place of one operation to the place of the next; and after the completion of each operation upon each batch there is an inspection report to be made, and there is work to be done in the planning department. This work is expensive; and the time and expense are no greater for a batch of 100 dozens than for a batch consisting of one handkerchief. In metal working and weaving there are also expensive special set-ups of machines. This expense, which is constant in amount for a batch, or manufacturing lot, is economized—its average per unit of product is minimized—by making the lots and batches large.

Thus there are two sets of factors, one making for large manufacturing lots, the other making for small ones. The problem confronting the planning executive is that of arriving at a size of lot for each design of product that will best balance the effects of those two sets of factors and thus bring the maximum ultimate economy, all factors considered.

The author addressed himself to the task of developing a general formula to which the planning executive can apply the specific data that pertain to a specific design of product. The book reveals that he devoted many years to the subject and became familiar with the practices and formulae developed in many manufacturing concerns of note, among them the General Electric Company. With the aid of symbols to represent the respective factors, the author has made a splendid analysis of the net effects of the opposing groups of factors. And he developed the formula. Indeed he developed at least two formulae. One is very complex, expressing the net effects of