sequent articles dealing with less generally understood aspects of scientific management.

The second group, "Scientific Management in General Management," shows how scientific management has attacked the problem of the general management through refined and precise methods of budgeting and administrative control. It is shown how an enterprise may set itself an over-all task just as it sets tasks for each of its constituent parts.

"Stabilizing Operations and Employment" is the third group. It should be given special emphasis because here we have so much stress laid on the matter of human relations. We learn how scientific management operates under periods of depression, how it attacks the problem of reducing unemployment and what Mr. Hoover thinks about the matter of industrial standardization. It is especially interesting to note that so many of the examples of advanced constructive effort in reducing unemployment are by firms that are distinguished as representative of Taylor methods. It will come as a distinct shock to that surviving few of those who believe that scientific management considers men only as machines, to find that scientific management on the contrary is leading the attack on problems concerned with man as a human being rather than as a machine.

Scientific management, it is shown, has followed a technique which involves fundamentally the harmonizing of human relations. This is particularly manifest in the last group of articles-"Ownership, Management and Workers." Here is a gold mine of accurate information for the open-minded, too vital and important to be commented on in a few words, strongly stressing the human relations side, and from the pens of men who are leaders in the scientific management movement.

One of the articles in the last group ends thus: "Applied scientific management, then, which does not relate its science to the desires and to the thoughts of all connected with a concern in all their relations, either organized or in process of organizing, is not true to the Taylor principles." It would be hard to find a more succinct statement than this, or one that more clearly defines the position of scientific management.

Mr Hunt is to be congratulated for bringing together articles which make a comprehensive and authoritative presentation of scientific management's logical and inevitable development and his book should be on the desk of every executive.

PERCY S. BROWN.2.

Payment by Results. By J. E. Powell, Longmans, Green & Co., New York, 1924, pp. 405. (658.32)

The purpose of this book is to make a critical evaluation of the various methods of payment by results, both as they compare with each other and in comparison with payment by the week or on some other basis. Although there has probably been much more experimentation with payment by results in this country than in England, it has taken an English student to formulate a theoretical and scientific study of the penetrating type for which the students of economics in England have come to be famous. The reviewer knows of no similar recent American book, and G. D. H. Cole's "The Payment of Wages" is the only other book with which it bears serious comparison.

At the outset, one serious criticism upon this careful work may be noted. It is that there is no consideration of the American experience with payment by results, and indeed hardly a recognition of the fact that this large body of experience is being ignored. The force of the presentation is, therefore, in its general and theoretical discussions rather than in its specific critical comment on methods in practice.

On this theoretical side, however, the author has made at least one major point which is of real importance, and which has probably received insufficient attention at the hands of American students of management. The point is simply that before introducing a system of payment by results managers should satisfy themselves that the ends they desire to achieve are not better secured in other ways. In order to get a check on this possibility, the author asks at the outset of the book the following questions which managers should put to themselves:

"1. The ascertainment of the existing position as regards rate of productions

"2. Is payment by results the right remedy, or is the improvement required outside its scope and do other remedies require prior application?

"3. What branches of the work can be dealt with, and what will be the effect on those workers whom it may appear necessary to leave out?

"4. What will be the effect on other workers of any grade; will wage values be brought into question?

"5. What system is to be used: an individual or a collective system, and if individual, which one; if collective, on what basis?

"6. What is to be the basis of job rates?

"7. How will the system be linked up with the existing routine?"

He points out that faulty organization which would reflect itself in lowered output may be due to a great variety of causes generally treated under the designation of production control problems. And he feels that until production control problems are solved, the introduction of payment by results is in danger of raising more problems than it settles.

He points out, for instance, the danger of getting the scheme of payment of a shop out of line, by making it possible for the piece workers to earn more than more skilled workers and foremen who are being paid on a weekly salary basis.

He points out also, of course, the difficulties that have to be met in the objections which the workers have had to methods of payment by results. He states these objections as three:

"1. The cutting of job rates. 2. The shortness of work supposed to follow the introduction of payment by results. 3. That the individual system in making earnings depend

upon successful individual effort encourages competition and sets one worker against another, causing jealousies and bad feeling."

The problem of the division of earnings between management and men when production is increased by incentive payments is not faced as adequately as its importance warrants. So far as the reviewer can discover, the author dismisses this question in the following wholly unsatisfactory fashion. His treatment is the more disappointing because of the need for new and critical consideration of this too frequently ignored topic:

"The question is quite often asked why the value of the whole of the saving made is not paid to the workers; why should the manufacturer take any portion? Superficially, or if production were entirely scientific in character, and all the factors under absolute control-individual skill and energy standardized, in fact, the human factor eliminatedthe answer would be in the negative; but, unfortunately, none of these conditions exist and compromises have had to be made, with the object of meeting as well as is possible a maximum of conditions which are unavoidably variable."

The conclusion on this point which Mr. Powell finally

reaches is as follows:

February, 1925

There appear to be but two distinct principles upon which payment can now be logically based: 1. Earnings to be entirely dependent upon and to be proportional to output. 2. Time wages to be guaranteed independently of the amount of output, extra pay to be dependent upon and to be proportional to the amount by which output is increased above a fixed minimum."

A vital major problem in the introduction and operation of systems of payment by results will be recognized to be the relation of employees to the whole rate-fixing department. The author's precise position on this vexed question, is a little difficult to discover. He makes an unexception-

able statement at one point as follows:

"To obtain and retain the confidence of the workers in the system in use, and to obtain economical production, is the acid test to which all systems of payment by results will be subjected sooner or later, and it should be the aim of every chief rate-fixer to see that his department is so managed that the workers can rely, without fear, upon getting a square deal."

In this statement there is no hint of any formal method of discussion or conference between managers and men as to the adoption of rates or the acceptance of time studies. And yet a few pages further on he ventures to say that "it is to be expected that complaints will be made on the score that new job rates are not sufficient, and some effort must be made to meet those complaints in a spirit of discussion, rather than of authority, and of reasoning, rather than of bargaining. The day is gone, and rightly so, if intelligent men are to be encouraged in workshops, for blind obedience to authority to be expected . . . .

"Anything like autocracy in this connection is to be shunned,... while the more ready the firm's officials show themselves to explain and to enlighten, the more satisfactory are the results likely to be."

Certainly, on this phase of the subject, Mr. Powell's treatment is, intentionally or not, far less clear-cut and

forward-looking than it might have been had he had access, for example, to the experiences of the men's and women's clothing industries in this country in operating time study and rate-fixing departments under joint employer and union control.

The book's strength will be seen to lie in its emphasis upon seeing the payment problem in relation to the technical problems of production control; and on this point its testimony is illuminating. No serious student of the payment problem can afford to ignore this study. Yet he cannot help realizing that there is need for a similar scientific analysis written by an American regarding American ex-ORDWAY TEAD.3

The Causes of Industrial Unrest: By John A. Fitch.4 Harper and Bros., New York, 1924, pp. 424. (658.31)

This is by all lodds the most perspicacious book upon labor problems which has been written since Robert Hoxie's "Trade Unionism in the United States." For over fifteen years, John Fitch has been investigating at first hand the struggles between abor and capital and trying to understand the policies adopted by both sides. This book is the fine fruitage of this wealth of observation seasoned by a mature judgment which is at once warmly human in its sympathies and still objective and scientific in its

As the title of the book indicates, Mr. Fitch's object is to discover and explain the reasons for the secular increase in the dissatisfaction of the manual wage-earners with our social and industrial order. After some preliminary chapters dealing with hours of work, the menace of unemployment, and the inadequacy of the income of a large percentage of the workers to provide an adequate standard of living. Mr. Fitch comes to the struggle between labor and capital. It is here that he makes his unique contribution.

He first proceeds to analyze why the vast majority of employers prefer not to deal with the unions and at the best only tolerate them as a necessary evil. Management, he points out, is burdened with the worries and the problems necessarily involved in producing goods and attempting to make the business a success. The coming of the union means the addition of another uncertainty. The employer is afraid that the workers will force his wagescale up to such a point as will put him at a disadvantage with his competitors. He is apprehensive lest his business become involved in sympathetic strikes or jurisdictional disputes, and most of all, he believes that the union fosters restriction of output on the part of its members, and by means of the closed shop is able to throw an almost impregnable defence around the slothful and the inefficient. It is thoroughly understandable, therefore, why the average employer tries to prevent unions from getting a foothold. His methods may be indirect, as witnessed for example in the recent rush to form shop committees, which

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