

The President's Unemployment Conference of November, 1921, studied the basic causes for unemployment, and in its report recommended several corrective measures which are consistent with the objects of our Society. The study of the business cycle, of which the report will be available this month, has emphasized the need for more comprehensive study and wider application of modern management principles. The investigation of the coal industry has shown by the statements published to date, that improved managerial practice as well as revision of basic policy in keeping with the policies of more stable industries, is essential if not imperative.

In the Department of Commerce there have occurred major developments in the presentation of statistical data showing the trend of business movements, with the result that executives in industry are given more facts at more frequent intervals, thus enabling them to visualize the future with greater accuracy. Commercial research, or market analysis, with regard to more effective foreign distribution of American products is providing a very real service to sales managers in many lines. An increasing amount of technical research and scientific investigation, being carried on by the Bureau of Standard in cooperation with various industries, is leading to improvement, refinement, and standardization of products, with increasing prosperity for those industries which recognize research as essential to balanced growth.

Those of you who recall Secretary Hoover's address on "Industrial Waste" (see *Bulletin* for April, 1921, p. 77) may be interested to hear that through the Division of Simplified Practice, which the Secretary of Commerce established to assist industries in solving problems of waste, simplification is being accepted by nearly a hundred different industries as the first step toward true conservation of materials, labor or human energy, time and money. Paving bricks have been reduced from sixty-six to seven varieties and sizes, beds have been reduced from two hundred sizes to one standard length and four standard widths for wood beds and two for metal beds. Springs and mattresses are being made to conform. Weights and varieties of metal lath are being reduced from over eighty to twelve. Milk bottles, formerly made in over one hundred sizes are being standardized with three heights for quart bottles, three for pints, and three for half-pints, with one standard cap size to fit them all. A. W. Shaw, formerly Chairman of the Conservation Division of the War Industries Board, who addressed the Society at its De-

cember, 1920, meeting on "Standardization," is a member of the Planning Committee which is broadcasting simplification to American industry.

The proposed reorganization of Federal departments has for one objective the grouping of bureaus and divisions by related functions, and when effected will facilitate economical government operation. The establishment of budget control of federal expenditures is a particularly significant instance of improved management in the business organization of the Government. The proposed consolidation of the railroads points to the elimination of waste in transportation, and more effective use of existing facilities to the end that the distribution of commodities may be more efficiently accomplished. The findings of the Joint Commission of Agricultural Inquiry as published in Report 408, especially Part IV, on "Marketing and Distribution," are in themselves a most excellent indorsement of modern management principles.

There are numerous other evidences of similar nature, but space will not permit their enumeration. The one outstanding fact is that Taylor's vision of scientific management is now being recognized as vital to the present needs of our country; and that his principles afford a sound foundation for planning those measures and activities which shall insure the future growth and prosperity of America.

RAY M. HUDSON.¹

NO SAFE SHORT CUT TO HIGH PRODUCTION MANAGEMENT.

It is comparatively easy in almost any manufacturing plant to secure increased production—for a time. The engineer who values his reputation, however, and the manager of the plant who is looking for long-time results, must constantly ask themselves the question, "Is this method which I am developing such as will result in permanent satisfaction?" Too many well-intentioned attempts to secure high production management result in disastrous failure through an attempt to introduce merely short cuts.

I believe that when the movement for modern methods of industrial administration, commonly referred to as "scientific management," comes to be dispassionately analyzed some time in the future, one of its fundamental lessons will stand out in unmistakable clearness—the fact that *there is no safe short cut to high pro-*

¹ Division of Simplified Commercial Practice, Department of Commerce.

duction management. As a corollary, the whole experience with this movement unmistakably teaches that incentive methods of payment of workmen cannot be substituted as a short cut for the careful development of the many factors which make for high production, high wages, and low costs.

No one thing has contributed more to the short life of so many serious attempts to develop better methods and served so effectively to discredit the whole movement for modern management, as has the introduction of incentive payment by opportunist engineers, without properly paving the way for it; and every such failure, doomed from the beginning, has reacted to the detriment not only of the individual plant but of the movement as a whole. The manager who yields to the temptation to attempt such short cuts is simply storing up trouble for the future.

A detailed enumeration of the fundamentals of good industrial management would require volumes. In outline, however, they group themselves under the following functions, upon which permanent improvements must rest:

1. The Determination of Standards.

The determination of the best way of performing work and of enforcing this way in practice until a better one be found, is the foundation upon which has been built such lasting betterments as we like to associate with the true conception of what modern management stands for. Just as surely as an appeal to the workmen has been made before machines, materials, methods and procedure have been standardized, has trouble arisen when the workmen found a way, as they easily have in such cases, to improve methods and either make disproportionately high wages or deliberately limit output and earnings to what they felt the management would stand for. A revision of rates, necessitated when they are based on an insecure foundation, has sooner or later led to distrust and lack of confidence in the management, if not to actual labor troubles. The wise manager will not camouflage such revisions through a conversion of the allowed or standard time into other more round-about expressions; the workmen will very soon put such attempts down for exactly what they are.

2. Planning and Preparation.

Where attainable results have been permanently secured in any given case, the work to be done has been as carefully planned in advance as was practicable, so as to secure maximum use of all facilities; and the preparation of all materials, tools, instruction, and so forth, has followed as a matter of prime importance.

3. Scheduling and Dispatching.

It has been realized that the accuracy with which work could be scheduled, delivery dates lived up to, and work in process and costs reduced, depend directly upon the carefulness with which standards have been set and with which plans and preparations have been made.

4. Inspection.

Careful inspection has followed as a matter of course, particularly where incentive methods of payment have been introduced.

All of these things simply mean that the wise manager has not expected to get something for nothing, because he knew that if permanently beneficial results were to be secured from the development of new methods of management and the installation of new methods of paying workmen, all of these functions must first be adequately handled in preparation for them. This preparation, furthermore, has been distinctly imposed upon the management, for the results could be satisfactory or eventually disastrous, only according to the thoroughness with which the management's part is played.

A slight analysis will show why incentive payment should ordinarily be the last thing to attempt in installing new methods of management:

1. It has been the general experience of those who have had most to do with developing high production management in various industries, that of the increase in production resulting from modern methods, probably less than 25 per cent on the average is secured thru additional effort on the part of the individual operatives themselves. Over three-fourths of a reasonable attainable pick-up, in other words, must come from sources other than the workman.

2. The direct labor cost in most industries forms less than 40 per cent of the total cost. The balance, consists of the cost of materials used and of the cost of overhead expense, or burden. It is a fair assumption, then, that of the practicable cost reduction thru such methods (which often runs up to 25-40 per cent or more of previous total cost), only 25 per cent of this 40 per cent, or only 10 per cent of what is reasonably possible, can be secured by extra effort on the part of the operatives themselves.

3. The incentive method of wage payment is essentially an appeal to the workman to put forth his best efforts toward high production. In essence, it is saying that the management proposes to pay him not simply according to time put in, but primarily for amount of

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