

the depression, and another of plants which are generally identified as Taylor plants, he would be astonished at the similarity of the two lists.

Scientific management has made its influence felt on a still higher plane. The present administration of the Department of Commerce has been endeavoring in many new ways to assist American industry. One was the appointment of a committee to investigate the extent of and the reasons for waste in American industry. The report of the Committee on Elimination of Waste in Industry is considered a most important public document; it was hailed by organized labor as one of the most important documents in their interest ever published—for it publicly placed the chief responsibility for waste on management. That committee was composed largely of Taylor engineers, its point of view was entirely Taylor, and the standards by which it judged waste were the standards, *simon-pure*, of scientific management. The present campaign of the Department of Commerce for simplified commercial practice (standardization of products within a trade) is the application in a large way of the good old scientific management principle of standardization of the products of the individual shop as an individual measure of economy.

The outstanding contribution which scientific management is now making, is to the solution of the problem of industrial relations. There have been advanced during the past four or five years many theories concerning the problem of industrial relations, nearly all of which have not and could not find practical expression; there have been many specific things attempted which have proved insufficient because they have not taken into consideration fundamental facts of human nature and of industry; now there is evident a tendency to turn for solution to the one thing which in individual plants has shown a large measure of success—*management on a factual basis*; in other words, scientific management.

There are many, both workers and managers, who believe that the only practicable means of settling industrial disputes is through strikes, lock-outs, jockeying in conference, temporary compromises, and so on, even though they recognize that these things are wasteful and costly to both sides. But there are others, both workers and managers in increasing number, who feel that the number of controversies would be materially reduced, if all the essential, indisputable facts concerning the situation which have given rise to a dispute could be laid on the table in negotiation, or even informally

reviewed by representatives of both parties before the stage of formal controversy and negotiation is reached. When leaders of the two sides to a potential serious controversy approach each other with this common mental attitude, begin to consider the details which have contributed to the unfavorable situation, endeavor to get at the real facts, inquire into the conditions of the business and of the management, and finally attempt to formulate constructive remediable measures, it is found that these remediable measures have to do with the administration and management of the enterprise, and are in spirit and in technique essentially identical with scientific management.

For "industrial relations" connotes relations in the conduct of enterprise; relations with respect to policies, plans and their execution. These relations pertain to no one thing, but to everything in the enterprise; they are found in no one spot, but everywhere in the enterprise. They are as long, as broad and as deep as is management. The problem of industrial relations is a problem, *the* problem, of management. A personnel department may perform many useful *specialized* functions; but it should always be borne in mind that everyone in the enterprise is responsible for a personnel function; that the entire enterprise is the real personnel department. Problems of industrial relations arise out of the policies adopted by owners and general management; out of the nature of general plans and schedules; out of the detail plans, schedules and standards established by the planning room; out of the conditions of work, nature of the equipment, and nature and adequacy of the materials provided; out of the conditions of employment and the wage rates which are established; out of the mental attitudes and specific conduct of executives and foremen. The diagnosis of a situation which offers a potential controversy must be a diagnosis of the methods of management; the remedy must be practical measures for improvement of the management; and those practical measures which most frequently improve the management in such a way as to remove the unsatisfactory conditions, are found to be measures which express the principles of scientific management.

In this connection I should like to call attention to a most illuminating book—Common's "Industrial Government." It is a report on the new, forward-looking measures developed by some eighteen plants conspicuous for their attempts to solve their problems of industrial relations. They are plants which represent the progressive movement in management—and nearly every one is either an avowed Taylor plant or a plant

which represents the spirit of scientific management.

It is my own conviction that at some future time, when the development of scientific management can be reviewed in proper perspective, its greatest contribution to the solution of industrial problems will be discovered to have been this: That at a time when American industry was dominated by ideals which made management but a game of chance, of trading in natural resources, growing markets, materials, equipment, processes, workers and equities, with now profit and now loss—that in the midst of an industrial society with such ideals, Taylor injected the concept that a business should exist for social service, that its purposes can be defined, its objectives planned and scheduled, detailed execution be so controlled as to contribute most economically to the final result, and that the final result can be a productivity of useful things so shared as to increase the comfort and promote the happiness of all concerned. In short, the Taylor philosophy of management first gave logical and coherent expression to the ideal that business should be an aggregate of processing enterprises instead of an

aggregate of speculative enterprise, and his system of management pointed the way to the technical accomplishment of that ideal.

Most of our industrial problems are the consequences of conduct which expressed the point of view that business is a speculative enterprise, a point of view which has by no means disappeared. The remedy is to substitute conduct which expresses the point of view that business is a measurable, controllable processing to meet a social need. To the extent that such a substitution is made will industrial society increase its demands upon scientific management.

I believe the day is not far distant when organized labor will be the principal proponent of scientific management. It will insist that the enterprises in which it participates shall cease to be speculative and shall become stabilized processing activities; and when it has so insisted, and has been countered with inquiry as to how that is to be accomplished, it will—whether it uses the term or not—recommend the methods of scientific management.

THE successful cooperation of sales and factory organizations depends first of all, therefore, on a sympathetic understanding of the other department's problems and requirements, a condition that can be brought about only through frequent conferences properly directed. A knowledge of company policies, of set standards of quality and of delivery possibilities and requirements must be shared by sales and factory executives alike. The coordination of sales and factory programs is vital. The setting of sales quotas by territories is a valuable incentive in carrying on sales programs, and on the other hand, careful planning of production is a prerequisite to the successful completion of the factory's part of the common program. Continual and careful supervision must be exercised over the service given by the offices as well as by the producing divisions of the business. Careful inspection has been designated as a vital necessity insofar as the factory departments are concerned, but it is equally essential that continual supervision be applied to office procedure and activities if the required and expected service is to be rendered. (Porosky, Practical Factory Administration, p. 236.)

THERE are few managers today who do not at least hope for the installation of a perpetual inventory system not only for the purpose of maintaining a record of goods on hand, but also because of its control possibilities. With a complete inventory system it is possible to establish and control the amount of money tied up in merchandise inventories. It cuts down the period of shutdown for taking physical inventories, and avoids thereby the resultant loss to the company and to the employees. It helps the production and scheduling departments to lay out an adequate and reliable production program. It aids in giving delivery promises to customers. It makes possible the consolidation of the ordering, scheduling and stores record departments with the resultant reduction in overhead expense. It assists in the proper costing of the product, a function now universally recognized as one of the most vital in factory administration. (Porosky, Practical Factory Administration, p. 68.)