

What is this ideal management which means so much to the small as well as the large stockholder? It is not a sales type of management. It is not a production type of management. It is not a "hunch" type of management. It is the management which spares no reasonable expense to develop and apply scientific methods. It is the management with economic perspective, imagination, initiative, open-mindedness, integrity and high ideals. It is the balanced management, which does not worship system as an end in itself, but evalu-

<sup>2</sup>F. W. Taylor, "Principles of Scientific Management," (1913 Edition), p. 140.

### The Spring Meeting—May 7-8 Detroit-Leland Hotel, Detroit, Mich.

In co-operation with the Society of Industrial Engineers and the Society of Time Study Engineers

#### Monday, May 7

##### Forenoon

Presiding: Morris Llewellyn Cooke, President of the Taylor Society.

"Major Characteristics of the Taylor Technique of Time Study" by Dwight V. Merrick, Consulting Engineer, New York.

Discussion will consider especially the uses of time study and variations in use according to conditions of operation. It will be led by William O. Lichtner, The Thompson & Lichtner Co., Incorporated, Boston, and L. K. Fyler, Eaton, Crane & Pike Company, Pittsfield, Mass.

##### Afternoon

Presiding: Gordon Lelievre, Oakland Motor Car Company, Pontiac, Mich.

"Study of Fundamental Operations of a Machine vs. Study of Individual Operations" by G. E. Schulz, Armstrong Cork Company, Linoleum Division, Lancaster, Pa.

"Unit Times vs. Overall Times" by Earl Watson, Pontiac Motor Car Company, Pontiac, Mich.

"Classification, Filing and Indexing of Data" by S. M. Lowry, The Procter & Gamble Co., Ivorydale, O.

Discussion will be led by Eugene Bouton, Chandler-Cleveland Motor Corporation, Cleveland, O., and Allan H. Mogenssen, University of Rochester, Rochester, N. Y.

##### Evening

Presiding: Louis Ruthenberg, General Motors Truck Corporation, Detroit, Mich.

"The Relations of Time Study and Motion Study" by Lillian M. Gilbreth, Gilbreth, Inc., Montclair, N. J.

"Standardization of Conditions and Analysis of Operations" by G. J. Stegemerten, Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

Discussion will be led by E. K. Wennerlund, General Motors

ates planned effort in terms of rationally expected achievement. In the words of the master exponent of its philosophy:

"It is no single element, but rather this whole combination, that constitutes scientific management, which may be summarized as:

"Science, not rule of thumb.

"Harmony, not discord.

"Co-operation, not individualism.

"Maximum output, in place of restricted output.

"The development of each man to his greatest efficiency and prosperity."

In the hands of such management, capital is always best protected.

Corporation, Detroit, Mich., and Howard G. Benedict, Consulting Engineer, South Orange, New Jersey.

#### Tuesday, May 8

##### Forenoon

Presiding: W. W. Nichols, D. P. Brown Company, Detroit, Mich.

"Selection of Workers for Observation" by Joseph A. Piacitelli, The Barber Asphalt Company, Maurer, N. J.

"Number of Workers to be Observed" by M. E. Stearns, Wilson Western Sporting Goods Company, Chicago, Ill.

"Methods of Observation" by A. L. Kress, United States Rubber Company, New Haven, Conn.

Discussion will be led by Hugo Diemer, La Salle Extension University, Chicago, Ill., and C. Plummer, Dodge Brothers, Inc., Detroit, Mich.

##### Afternoon

Presiding: Charles Mottashed, Hudson Motor Car Company, Detroit, Mich.

"Analysis of Data and Computation of Net Times" by George DeGraw, Dodge Brothers, Inc., Detroit, Mich.

"Computation of Allowances" by Stephen B. Sponder, Chicago Flexible Shaft Company, Chicago, Ill.

"The Production Study as a Check" by L. W. Haskell, Dodge Brothers, Inc., Detroit, Mich.

Discussion will be led by H. W. Barry, Packard Motor Car Company, Detroit, Mich., and Harry Ford, Cadillac Motor Car Company, Detroit, Mich.

##### Evening

Joint Meeting with N.R.D.G.A.—Hotel Statler.

Presiding: J. H. Paswaters, Chairman, Store Managers' Division, National Retail Dry Goods Association.

"The Application of Time Study to Shop Operations" by L. W. Haskell, Dodge Brothers, Inc., Detroit, Mich.

"The Application of Time Study to Office Workers—Both Clerical and Machine" by W. H. Leffingwell, The Leffingwell-Ream Co., New York.

On Wednesday, May 9, plant visits have been arranged with Cadillac Motor Car Company, Dodge Brothers, Inc., Ford Motor Company, Hudson Motor Car Company, and Packard Motor Car Company.

## Smoothing the Wrinkles from Management<sup>1</sup> Time Study the Tool

By SANFORD E. THOMPSON  
President, The Thompson & Lichtner Co., Boston

THE MODERN executive is appreciating the fact that time standards are of major import in management, that the manner in which these are handled frequently means a difference between profit and loss in his balance sheet and a choice between contented workmen and labor unrest.

The use of time study is spreading rapidly—more rapidly perhaps than a thorough understanding of its principles. Lack of appreciation of its importance on the part of chief executives may lead, on the one hand, to the hiring of inexperienced young men to handle a job that requires experience and judgment and, on the other hand, to the engaging of service vendors to introduce a "system" dealing simply with the placing of a piece price upon a job without regard to its manner of performance or to its setting in the business as a whole.

The improvement of any business, whatever its nature, requires a broad treatment dealing with finance, marketing, budgeting, master planning, inventories, production control, standardization, wage determinations and cost control. The development of time standards is only one element in the broad improvement program, an element of vital importance but one that should not be treated independently nor to the exclusion of the other elements. It should rather be part of a broad conception which includes, allows for and develops all aspects of the program.

#### Results of Time Standards

Time standards, properly developed through time or motion study, (1) reduce labor cost through a higher and more uniform rate of production; (2) reduce idle time of men and machines through the accurate planning which they make possible; (3) maintain, insure or improve quality by aiding in the adoption of uniform and best methods; (4)

<sup>1</sup>Paper presented before a meeting of the Taylor Society, New York, December 9, 1927.

aid sales by providing accurate knowledge of labor costs, and (5) improve labor conditions and decrease labor turnover by giving a square deal and increased earnings to the worker.

#### Purpose of This Paper

This paper is designed, first, to present fundamental principles and practical methods of using time studies in the various functions of a business and, second, to show specifically the place in industry of time measurement and job analysis as a tool of management.

It is not assumed for a moment that time study is a cure-all for irregularities in management—that its use can smooth out all the "wrinkles." In a machine shop, for example, the establishment of standards of feed and speed may precede time study to good advantage. In a pulp and paper mill, the process standards are more important than time standards and result in reduction of labor and easier performance. Time study further assists, however, in obtaining and maintaining process standards. Furthermore, it is apparent that the basic principle of time analysis, that is, the consideration of the elements of any problem, whether it be in process, machinery or men, forms the basis of our wonderful present-day developments along research lines.

Time study is often looked upon simply as a mechanism for setting piece rates, and determination of standard times for fixing incentives is of great value. Time study has, however, a still broader use which is insufficiently recognized. It is a tool for the development and operation of controls that enables management to know what a standard day's work is and to obtain this standard from each machine and work place. Thus a maximum production is secured from a minimum of equipment and personnel. The by-product of this is a highly productive and highly paid personnel. Treatment of the subject, therefore, must include these factors, so important from the point of view of