The book is of twofold interest and value. First, in its description of a method and a record of experience in building a curriculum about the elements of a job, obtaining the elements through job analysis and second, in its direct application and use in the printing industry which was used as the basis for study.

Chapter I is the introduction. The Carnegie Institute of Technology has been working since 1920 in surveying three distinct fields of executive work—building construction, commercial printing and the metal working industry. This book is the result of the study of the printing industry.

Chapter II is a description of the method used in the field work in making job analyses in the ten printing establishments examined.

Chapter III is the spedifications of commercial printing functions based on the job analyses made.

Chapter IV is the construction of a curriculum based on Job Analysis.

Chapter V is the printing curriculum developed. It is realized that a college curriculum training men for a specific job or field of activity is not desirable unless the students have already had a broad educational foundation before entering the curriculum. It is also known that it is impossible to educate a group of men as a class with any assurance that a small proportion will remain in the particular field for which they are trained. For this reason, stress has been placed on the broader applications of business administration although the basis is the business of commercial printing and two of the aims of the course are "the training of men to become executives in commercial printing shops" and the provision that although "printing executives need not be experts in shop processes" they "should know good work and how long it takes to produce it."

Chapter VI, the last chapter, is a bibliography of Job Analysis.

The freedom from technical language makes the book understandable to the large field of readers to which it will appeal: engineers, in its method of analysis; educators and personnel directors in both its general and specific application to industry; and printers in its specific information regarding their industry. That this last is appreciated is shown in the cooperative effort given by the printers in the making of the studies.

C. L. BARNUM.9

Miners' Wages and The Cost of Coal. By Isador Lubin, The Institute of Economics Series: McGraw-Hill Book Co., Inc., New York, 1924, pp. 316.

There is hardly another industry which has attracted so much attention and been the subject of so many studies as has bituminous coal mining. It is an extreme industry in which the human element is large. As such it is a

Consulting Engineer, Pleasantville, N. Y.

good industry for inquisitional experiment. The total result of the inquiries may be a better understanding not alone of coal but of all industry.

It is unfortunate that the author of Miners' Wages and The Cost of Coal—an inquiry into the wages system in the bituminous coal industry and its effect on coal cost and coal conservation—did not have a larger grasp of the whole coal problem. If he had considered miner's wages as a part of a whole, and that whole determined by relations to many another industrial whole, instead of attacking miner's wages detached from any other element, he might not have brought up at the conclusion that "the wages structure in the bituminous industry is neither unified nor logicall' and that "the wages system has proved economically wasteful."

I believe it is part of the principles of scientific management that all the elements which go into the doing of work should be put upon a sound basis before rates of pay are established; that wage rates should be the last thing fixed. In the disjointed environment which exists for most bituminous coal mining companies, the wage system in force is the practical one, although considered by itself it is inequitable to the workmen and in itself illogical.

Even with the fault of not having related wages to the other factors of the coal industry, this study into miner's wage's is one which it is worth while to have had made. Those who in all probability will study it will also study other inquiries and will be able to relate the wage system to the rest of the troubles. For miners' wages are not the only thing which is "neither unified nor logical" in "the present, disorganized condition of the bituminous industry."

Hugh Abendan.<sup>10</sup>

THE National Association of Cost Accountants has extended to all members of the Taylor Society an invitation to attend their next annual meeting. September 22 to 25 at Springfield, Mass.

The following topics will be discussed: "Some Practical Applications of Budget Methods," "Some Definitions of Cost Accounting and Their Cures," "Organizing a Business for Cost Reduction," "The Proper Treatment of Variations from Standard Costs," "Some Debatable Points in Cost Accounting Theory," "Selling and Administrative Costs—Their Definition, Analysis and Distribution."

Of special interest will be plant visitations to American Bosch Magneto Corp., American Writing Paper Co., Chemical Paper Manufacturing Co., Fisk Rubber Company, Rolls-Royce of America, Inc., Springfield Armory, and Westinghouse Electric Co.

A detailed program may be secured from the National Association of Cost Accountants, 130 West 42nd Street, New York City.

BULLETIN OF THE

## TAYLOR SOCIETY

AN INTERNATIONAL SOCIETY TO PROMOTE THE SCIENCE AND THE ART OF ADMINISTRATION AND OF MANAGEMENT

WHILE others have cooperated and contributed to the development of this new science of "industrial management," to Dr. Taylor belongs the unquestioned credit of having been the first to grasp clearly its full significance and possibilities, and to formulate and codify its fundamental principles, and he will always be recognized and honored as its founder.

— Henry R. Towne.

Engineering Societies Building 29 W. Thirty-Ninth St. New York NO BE TO SEE THE NO.

OCTOBER, 1924

VOL. IX., NO. 5

<sup>10</sup> Mining Engineer, Philipsburg, Pa.