sound principles and comprehensive philosophy extend far beyond these limits. An increasing number of leaders, not only in industry but also in other communal activities, are influenced in their thinking and in their actions by the Taylor philosophy. So much of this influence is subconscious that there is at the present time no possibility of an adequate appraisal of its extent.

One who is interested in industry and the solution of its problems, one who is interested in the life and accomplishment of a practical man with a big vision cannot afford not to read this life of Frederick W. Taylor.

A Promoter of Harmony[1]

By Scudder Klyce[2] { 658. 658.92

THIS life of Taylor by Copley does two things at the same time. It describes the activities and character of an engineer who almost surely will be ranked by coming generations as one of the greatest men of the world. And it shows how Taylor worked out the principles and methods of handling men, and just what those are and how they work.

It is an astonishingly honest, and hence interesting, life story of a most unusual and vivid man. Copley frankly acknowledges to begin with that he is enthusiastic over the soundness and greatness both of Taylor's personal character and of his work. The result is a real biography of a real man—a hard hitting man we can't help but respect and admire. Miss Ida Tarbell is quoted as saying, "Mr. Taylor never seemed to me more of a gentleman than when he was swearing."

Both our Army and Navy are primarily interested, as was Taylor, in finding out how best to handle men and to handle machinery—and, usually, how best to handle them together. So it was natural, almost inevitable, that he should have had extensive dealings and friendships with both Services. And those Service matters are given in considerable detail.

One long chapter is given to Taylor's connection with the Navy, and one to the Army. Most of the navy chapter gives Taylor's relations to Admiral Goodrich's reorganization of the New York Yard, and the subsequent extension of that as the "Newberry plan," and then the opposing "Meyer plan." The army chapter describe's General Crozier's introduction of scientific management into the arsenals, and the objections made by some labor leaders. The inside facts and reasons controlling those Service questions are given, Taylor being at the bottom of them. He also dealt with education extensively, advocating for all colleges the West Point and Annapolis discipline, showing why.

Taylor's principles and methods of handling men primarily aimed at what he called the "promotion of harmony," and are based on justice and common sense which is the opposite of coddling and slackness. There is no space here even to summarize those principles which Taylor worked out with such extraordinary ability, and which Copley presents so entertainingly. It is the most intelligible and directly applicable book on handling men the present reviewer has read.

Copley is a trained and successful popular writer, and his long study of Taylor has given him much of Taylor's pungent and vivid speech. So this life he writes of Mr. Taylor is more interesting than a novel, entirely apart from the fact that it deals much with our own friends and affairs, and is in a high degree professionally useful to us as a treatise on handling men.

[1]Reprinted by permission from *U. S. Naval Institute Proceedings*, July, 1924. The caption is ours.
[2]Author of "Universe," Winchester, Mass.

Scientist of Work[1]

By H. S. Person[2] { 658. 658.92

ECONOMISTS and engineers are in accord that this is a significant portrayal and interpretation of an epoch of major importance in American industrial history (1880-1915); a panorama of the growth of a philosophy of which Taylor was the leading artisan, which has so seized the world as to have led to the holding this year of an international management congress dominated by the concept of "scientific management"; and that as an historical analysis and exposition of Taylor principles and practices of management, it makes these more understandable than do the collective writings of Taylor himself. There is general agreement also that Taylor was a scientist of the highest order.

What started the young foreman along the line of investigation and experiment which eventually resulted in epoch-making discoveries in cutting metals, in the "Taylor System" and scientific management, was a

[1]Reprinted by permission from *Survey-Graphic*, December, 1924.
[2]Managing Director, the Taylor Society, New York City.

desire to find a factual basis for better relations between employer and employee. A strong social sense, an inherited Puritan-Quaker tradition, essentially religious in nature (although he could not identify himself with any church), and a democratic respect for every individual, no matter how humble, governed the utilization of his scientific ability, and made betterment of industrial relations the dominating motive throughout his life.

Taylor's abomination of "autocratic authority" affords a cue to an understanding of his controversies with employers and with organized labor. Although it was his controversy with organized labor which received the greater publicity, he was consistent, in that criticism of employers was equally vehement and on the same grounds. To him autocratic authority was the authority of mere ownership, or of organized power, or of guess, whim or prejudice. He believed that both ownership and organized labor were in conduct exponents of such autocracy. His attitude was governed by the profound conviction that greater productivity, shared by all, is the condition precedent to a higher standard of living, and that "laws and the control of laws" of industrial action, in general and in detail, which would lead to greater productivity, could be discovered if owners, managers and workers would consent to the discovery of them, and that such consent would mean a getting-together which would resolve most of the problems resulting from common misunderstanding. Neither owners, managers nor unions would in his day listen to this suggestion.

Being both fearless and intensely serious, he on the one hand condemned "a hog employer or an employer careless of his workmen's rights," and on the other hand, with less violence of speech but with equal intensity of feeling, condemned labor organizations which "as at present constituted stand for war, for enmity." "The labor unions—particularly the trade unions of England—have rendered a great service, not only to their members, but to the world . . . ." "There is no reason why labor unions should not be so constituted as to be of great help to both employers and men." "You realize of course that I am not opposed to labor unions. Their proper field as they now exist is, I feel, outside of scientific management . . . . I can conceive of a union that would be most helpful to scientific management, but I have not yet seen this union." One wishes he could have lived to witness certain recent developments in various clothing markets and on a certain railroad—evidences of a new mental attitude on the part of some owners, managers and unions, resembling that of Taylor himself and brought about in no small part by his influence on industrial thinking.

"Take Nothing for Granted"[1]

By Edward P. Leonard[2] { 658. 658.92

THE improvement of business methods was a passion with Frederick W. Taylor. That is the chief impression left by his recently published biography. Nothing was too small, nothing too vast for his painstaking attention.

He demonstrated that science—the scientific method, rather—could be profitably applied to the very practical details of business. And his shop experiments were models of exactness. In his metal-cutting investigation, the high spot of which was his discovery of the high-speed drill, Taylor made 40,000 experiments. Two similar investigations have been made, one in 1901 by a committee of Verein Deutscher Ingenieur (the German Society of Industrial Engineers), and the other in Manchester, England, in 1903-04 by eight manufacturing firms acting jointly with the Manchester Association of Engineers and the Manchester Municipal School of Technology. Although the English experiments were more thorough than the German, they did not begin to approach in exhaustiveness the ones that Taylor undertook singlehanded. The English limited themselves to 200 experiments.

Small wonder that the distinguished Frenchman, Henri LeChatelier, member of the Academy, professor of chemistry in the Sorbonne, recipient of the Bessemer medal, father of exact high temperature measurements, and director of *Revue de Métallurgie*, should be somewhat chagrined to find the experiments of Taylor conducted in the everyday practicalities of the shop more thoroughly scientific than those of his own laboratory. "I was somewhat ashamed to find the science of a practical man infinitely more developed than my own," he wrote Taylor. And this from that practical man of business, Henry R. Towne, chairman of the board, Yale and Towne Manufacturing Company: "Mr. Taylor was the first to perceive that in this field (industry and commerce), as in the physical sciences, the

[1]Reprinted by permission from *System, The Magazine of Business*, May, 1924.
[2]Associate Editor, *System, The Magazine of Business*.