

This adds value to the opinions which they have freely expressed.

The book should be read by all high school teachers and others who are frequently asked to advise young men in the choice of a career. In a great many cases the advice given by them is founded on the most hazy ideas of engineering, and the student who plans his education on such advice only finds out, often too late, that he is on the wrong track, and his time has been wasted in pursuit of a career for which he is not fitted.

Tacheometer Surveying. By M. E. Yorke Eliot, A.M. Inst.C.E. Published by E. & F. N. Spon, Limited, London, and Spon & Chamberlain, New York. 145 pages, $4\frac{1}{2} \times 7$ ins., 1 plate and 30 illustrations, cloth. Price, \$1.50.

This book is for the use of engineering students who require a book which gives information on the actual handling of the work in the field and office. Four chapters are devoted to the elementary study of the subject, and are intended to give the student a thorough knowledge of the simpler work before going into more difficult phases of it. A whole chapter is devoted to the actual field work of a contour survey, from selecting the station points to the final calculation. Another chapter gives the office work in connection with the survey. The calculation of lines and areas and the uses of the slide rule are taken up. The author states that the book has been written with the intention of explaining tacheometry as it is practised in countries outside of England and aiding in the more widespread use of the methods employed.

Railway Regulation. An analysis of the underlying problems in railway economics from the standpoint of government regulation. By I. Leo Sharfman, Professor of Political Economy, University of Michigan. Published by the La Salle Extension University, Chicago. 230 pages, 6×9 ins., leather. Price, \$2.00.

A book presenting an analysis of the leading problems in railway economics from the standpoint of government regulation in the United States.

The historical facts are presented which have led up to present-day practice and problems. The author quotes figures which show the magnitude of the railway industry and the influence it has had on the development of the nation. The history of railroading under private development and public aid, and the evils of early speculation, are given with some detail, showing how public sentiment gradually turned against the roads. Chapters are devoted to Railway Competition; the Theory and Practice of Rate-making; the Regulation of Railway Rates; Railway Discrimination and various legal decisions of the courts on regulation of roads.

While the book has been written entirely with regard to American railroads, it would be of interest to the student of railway economics.

Elements of Highway Engineering. By Arthur H. Blanchard, C.E., A.M.Am.Soc.C.E., M.Can.Soc.C.E. Published by John Wiley & Sons, 1915. 500 pages, 6×9 ins., 202 figures, cloth. Price \$3.

In the preface the author states that the book was written for the use of students who required only the fundamental principles and did not desire to take up a special course in highway engineering.

The first five chapters deal with highways in general. The ancient Roman roads are described. They were

originally built for military purposes and declined with the fall of the Roman Empire. The reader will note how very similar were the ideas of the ancients with our own in regard to design of roads. Reference to the pioneer work of Tresoguet in France and McAdam and Telford in England is made.

Economics and methods of taxation for road improvement are discussed, with a very full description of methods in use in France. Preliminary investigation, survey and design, grading and machines are each given a chapter.

The following twelve chapters give details of different classes of roads and pavements. Development, with historical data and a glossary of terms, heads each chapter. Very little space is given to natural roads. The remainder of the book is given over to street-cleaning and snow-removal, sidewalks and highway structures, which are very lightly touched on. Useful appendices on highway terms and testing of material are added.

Industrial Leadership. By H. L. Gantt. Published by the Yale University Press, New Haven, Conn. 128 pages, 5×8 ins., with nine charts. Price, \$1.00 net.

This book contains addresses delivered in the Page Lecture Series, 1915, before the senior class of the Sheffield Scientific School, Yale University. The author states that in his lectures he has attempted to set forth the principles on which industrial democracy can be based so as to be more effective than any system of industrialism which can be developed under autocracy. The great war is evidence of the superiority of autocracy in organizing a nation for both industrial and military efficiency, and if democracy is to compete successfully it must develop methods which will be at least equal to those employed by autocracy.

Civil Engineers' Cost Book. By Lieut.-Col. T. E. Coleman, Royal Engineers. Published by E. & F. N. Spon, Limited, London. 381 pages, pocket size, cloth. Price, \$1.50.

This book is compiled for the use of engineers and contractors. Actual costs of construction for various works are given, the details for which have been gathered by the author during a long and varied experience in connection with civil and military engineering works. A chapter on cost of plant and machinery will be very useful. As a general reference book for engineers engaged in countries where English units of currency are in force it no doubt will be found very useful. For Canadian engineers, however, it will serve more as a basis for comparison of costs.

Railway Maintenance Engineering. By Wm. H. Sellw. M.Am.Soc.M.E. Published by D. Van Nostrand Company, New York. 360 pages, $5 \times 7\frac{1}{2}$ ins., 194 illustrations and 6 folding plates, cloth. Price, \$2.50.

The author states that the book was written primarily as a text book for students, but that some information of an advanced character has been included that will be of value to the practising engineer as a reference book. It would be particularly useful to the location or construction engineer breaking into the maintenance department activities. In case of the reader desiring to go more fully into questions discussed, there is a bibliography at the end of each chapter which will direct his efforts along the lines of research. The first four chapters deal with construction problems; the remainder of the