

and a list of other authors referred to in the text. Our opinion is that this small book is most useful to any requiring assistance in work on illumination.

Motorcycles, Side Cars and Cycle Cars.—By Victor W. Page, M.E. Published by the Norman W. Henley Publishing Company, 132 Nassau Street, New York. 550 pages; 339 illustrations; size, 5 x 7 ins.; cloth. Price, \$1.50.

This book is a comprehensive, non-technical treatise, defining all forms of the lighter self-propelled vehicles, principles of operation, construction and practical operation of components in the leading machines. It contains detailed advice on management, maintenance, and repair of all representative types.

Undoubtedly the growth of the motorcycle industry has created a field for a book of this nature. The motorcyclist has heretofore been obliged to acquire his knowledge by much research and reading because the books on motorcycling have been in the nature of elementary pamphlets rather than works of any pretensions. He will find in the work at present under discussion some very useful material, easily understood and up-to-date.

Memorials of Henry Forbes Julian.—By Hester Julian. Published by Chas. Griffin & Company, Limited, London. 310 pages; illustrated; size, 6 x 9 in.; cloth. Price, \$1.50 net.

These memorials of Henry Forbes Julian, a member of the Institution of Mining and Metallurgy of Great Britain, joint author of "Cyaniding Coal and Silver Ores," and who perished in the Titanic disaster of April, 1912, have been written and edited by his wife, the author of a number of widely-known biographical works. In the course of his profession as a mining engineer the subject of these memorials was called upon to travel in many countries, and his prominence in the metallurgical industry resulted in a widespread reputation and recognition. He was one of the pioneers of metallurgical work in South Africa, as well as having taken an active part in the development of mining in Germany, Mexico and the United States. The text affords ample indications of his scientific acquirements, his patient industry and adaptability to varied circumstances.

Clean Water and How to Get It.—By Allen Hazen, consulting engineer, New York. Published by John Wiley & Sons, Inc., New York; Canadian Selling agents, Renouf Publishing Company, Montreal. 196 pages; illustrated; size, 5 x 7 ins.; cloth. Price, \$1.50, postpaid.

This is the second edition of Mr. Hazen's book dealing with matters of general policy, pressure, fire service, sale of water, and the financial management of waterworks. The volume describes a number of plants and their methods of operation, to illustrate the principles involved. The second edition contains chapters upon the disinfection of water and the "red water" trouble, as well as a general bringing up to date the treatment of the subject in general. The problems of water supply from large and small lakes, from rivers, and of ground water are concisely dealt with in separate chapters. Chap. 6 is devoted to a discussion of the action of water on iron pipes and the effect thereof upon the quality of the supply, together with an outline of the recognized methods for the elimination of trouble in connection with the same.

The development of water purification in America is historically dealt with in a very concise yet comprehensive chapter. The questions of tastes, odors, coagulation and filters are clearly explained. Chap. 9 deals to some length with the nature of purification methods, classifying the

processes into mechanical separation, coagulation, chemical purification, disinfecting processes, biological processes, aeration, and boiling. Chap. 10 deals entirely with disinfection, Chap. 11 with the application of the methods of water purification, arranged according to the matters to be removed by the treatment; Chap. 12 with storage of filtered water; Chap. 13 on the required sizes of filters and other parts of waterworks; Chap. 14 as to the pressure under which water is to be delivered; Chap. 15 on the use of measurement of water; Chap. 16 on the financial aspects of the water supply problem; Chap. 17, the laying out and construction of works, and Chap. 18, on the financial management of publicly-owned water supply systems.

The book is very carefully indexed and will be found useful by engineers and waterworks superintendents.

A Glossary of Road Terms.—By H. Percy Boulnois, M. Inst. C.E., city engineer of Liverpool, etc. Published by St. Bride's Press, Limited, London, England. 71 pages; size, 5 x 7 ins. Price, 50 cents net.

The convenient manner in which this glossary has been prepared will receive an enthusiastic welcome from highway engineers. The author's attempt to standardize the nomenclature of road terms appeared last year in the columns of *The Surveyor*, London, and has resulted in a number of valuable suggestions and criticisms which the author has subsequently incorporated in his work. The glossary follows closely the road terms of the Engineering Standards Committee, the author taking this step advisedly and refraining from technical and geological terms of various rock materials in use.

Oil Fuel: Its Supply, Consumption and Application.—By Edward Butler, M.I.M.E. Published by Chas. Griffin & Company, Limited, London, Eng. 328 pages; 150 illustrations; size, 5 x 7 ins.; cloth. Price, \$2.00 net.

This is a third and considerably enlarged edition, and comprises an exhaustively and systematically classified record of the development and progress made in the application of oil fuel for marine and naval purposes, locomotives, road vehicles, lighting, domestic, metallurgical, and other purposes. The relative advantages of steam, compressed air and mechanical action as an atomizing addition for liquid fuel-burners is treated carefully in thirty pages, which include the results of a number of tests. The technical composition of fuel oils, their thermodynamic properties, and a history of combustion methods are each treated to some length, while the origin, production and sources of supply of liquid fuel are dealt with in an interesting and authoritative manner. The production of petroleum in the chief oil-producing countries covering a period of a number of years is also given.

The book will be found of distinct value to engineers and manufacturers who encounter various problems connected with the combustion of oil fuel.

Report of a Plan of Sewerage—City of Cincinnati.—By Harrison P. Eddy, Consulting Engineer; H. M. Waite, Chief Engineer, Department of Public Works, and H. S. Morse, Engineer-in-Charge. 730 pages; plates, maps, diagrams; and tables; size, 6 x 9 ins.; cloth.

This is one of the most complete reports on the sewerage of a city that has ever been published. The general report, of 32 pages, outlines the matter treated and the conclusions reached. The treatment of the development of the sewerage system, an account of the detailed underground survey of the existing system; a topographical survey for future plans; data on rainfall and runoff, the planning of relief sewers, of intercepting sewers and creek mains, and the