

Of late years the social or community interest became uppermost with him and he believed that the schools could do much to repair the wreckage of the War; he emphasised always the need for co-operation and pulling one's weight, for choosing the high path, for steadfast devotion to duties and leaving rights to take care of themselves.

The last evening of Sanderson's life was spent with the present writer. He had attended the Rothamsted annual function and had obviously enjoyed it. After the visitors had gone we sat talking and, as always, he soon came to his plans for the future. He was delighted that his long-desired Chapel was to be built. It was to be the centre of the school life and as beautiful and dignified as he could make it; not only with the beauty of stone: it was to be also in a wonderful garden—a miniature Kew, as he said. In the windows were to be the great calls to a high and noble life. Most of all he was delighted with Lady Scott's statue of the bright-eyed, eager-hearted, expectant boy—"Here am I, send me"—the type he wanted to send out to remake a broken world. It was the man himself speaking of his hopes and ideals, as few would care to do to another man—ideals of fulness and richness of life based on beauty and nobleness of living. For these we wished our boys to strive and so we had entrusted them to him.

Sanderson had thoroughly enjoyed life. He early found what most men desire—a great cause on which to spend himself, and to which he could give once and give all. As the years passed they had but mellowed him, bringing out his kindliness and his rich rare gift of keeping touch with youth. When the news of his death was told to the school there fell a great silence. It had been the homage given him in life when he rose to speak; it was given him now. But their abiding feeling was one of thankfulness for the life which had so truly moulded theirs, and of certainty that this was not the end. The triumphant song "Let joy and praise to Heaven rise" can rarely have been more wonderfully sung than by the boys of Oundle when he was carried from their midst.

E. J. RUSSELL.

Civil Engineering Geology.

Elements of Engineering Geology. By Prof. H. Ries and Prof. T. L. Watson. Pp. v+365. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1921.) 22s. net.

THE call for a smaller engineering geology than the large work issued by Prof. Ries and Prof. Watson in 1914, has led those authors to prepare an

abridgment entitled "The Elements of Engineering Geology." The volume includes an account of the general principles of geology and petrology, apparently with the intention that the book should suffice for the geological needs of engineering students. It, however, includes no sections on stratigraphy or palæontology, some acquaintance with which is generally regarded as essential to a geological course in engineering. Knowledge of these subjects would be necessary to the student who would benefit by the long chapter on ore deposits.

The book may be highly recommended to British students of civil engineering owing to its clear treatment of many important problems and its instructive series of maps and illustrations, though its value to them is inevitably lessened by the fact that most of its illustrations are taken from American example and literature. The nomenclature is also American in such cases, such as "gumbo," and the use of "diabase" instead of "dolerite." The attribution of all China clay to weathering is a conclusion which is emphatically rejected in Europe. The statement on p. 90 that an oil shale to be of value should yield from 30 to 60 gallons of oil per ton in addition to ammonia, is not in accordance with experience in Scotland, where shales containing 20 gallons or even less have been profitably worked. Melting snow is said rarely to affect large streams; this is certainly not true of some large rivers in Europe and Asia, where the spring floods are due to this cause.

The authors use the unlucky term "corrasion" for mechanical excavation by rivers and "corrosion" for solution. The American use of distinct terms for the basal and lateral wear of the streams had much to commend it; but "corrasion" as in the line "wealth corraded by corruption" means to "scrape together," and corrasion was first used in the sense of corrosion apparently by a misprint. In regard to nomenclature it is also to be regretted that the authors in a book on economic geology use the term "mineral" in the sense of "mineral species" or "simple mineral" and thus exclude coal, slate, most ores, oil shale and mineral oil from the category of minerals.

The chapter devoted to the coastal topography of the United States is particularly interesting and well illustrated; the difference of the problems from those which have to be dealt with by the British coastal engineer is shown by the absence in the book of any reference to groynes. In spite, however, of the book being mainly adapted for American colleges it may be warmly recommended to British civil engineering students.

J. W. G.