

material, care in labelling all specimens—on these and other cognate matters the author draws from his extensive experience, and the article is one in which those who are beginning research will find much that is helpful.

*Municipal Engineering.* By H. Percy Boulnois. (Pitman's Technical Primers.) Pp. vii + 103. (London: Sir Isaac Pitman and Sons, Ltd., 1921.) 2s. 6d. net.

It is clear from the matter in this little book that the author has had very extensive experience in municipal engineering, and the list of important appointments he has held—as noted on the title-page—gives ample confirmation of this impression. He is therefore usually a safe guide in the matter of offering advice to young men who intend to enter this profession. The position, appointment, and training of the municipal engineer are explained, and the special responsibilities he has to accept are fully discussed. A considerable number of examinations have to be passed; these provide, or should provide, evidence of a sound training in the scientific and other subjects required of the municipal engineer. It is, therefore, unfortunate that the author, whilst decrying “cramming,” suggests on p. 44 that there are numerous coaches or crammers who can assist a candidate. We should rather have expected advice of a kind which would have led young men to spend a few years in following a course in engineering with special attention to municipal engineering. Such courses are now available at several colleges, and when combined with a pupilage for the sake of acquiring practical experience will produce properly qualified men. That the author fully understands this is clear from other pages in the book, and it is unfortunate that the blemish on p. 44 should appear in this otherwise excellent and helpful volume.

*History of the Great War, based on Official Documents.* By Direction of the Historical Section of the Committee of Imperial Defence: *Naval Operations.* By Sir J. S. Corbett. Vol. 2. Pp. xi + 448 + 17 plans. (London: Longmans, Green, and Co., 1921.) 21s. net.

THIS volume, the second of Sir Julian Corbett's masterly series on the naval operations of the great war, covers the six months from November, 1914, to May, 1915. It is based primarily on the official documents of the British Admiralty, but the information supplied by these has been supplemented from other sources, notably the revelations of disillusioned German seamen, such as Admiral Scheer and Admiral Hugo von Pohl. The narrative is fascinating in its interest. It displays in their entirety the operations of which at the time of their happening we obtained but partial glimpses. Here we can read—and, if we once start, must continue to read—about the raid on Scarborough and Hartlepool (December, 1914), the loss of the *Formidable* (January, 1915), the early attacks on the Dardanelles (February, 1915), and the sinking of the *Lusitania* (May, 1915). The maps and plans are numerous and excellent.

*A Sketch-map Geography: A Text-book of World and Regional Geography for the Middle and Upper School.* By E. G. R. Taylor. Pp. viii + 147. (London: Methuen and Co., Ltd., 1921.) 5s.

A SERIES of sketch-maps presenting the fundamental geographical facts of regions and places, with brief explanatory text. The author claims three advantages for this method. In his first claim, that pupils will acquire the habit of working out the geography of a place for themselves, instead of reading up the facts, we think that he is over-sanguine. Boys, at any rate, will just learn up his sketch-maps by heart as they formerly did the written facts. Probably, however (as he claims next), they will remember these facts better, and will find the diagrams more interesting than solid paragraphs. Also the third advantage may be realised—the pupils will become accustomed to illustrate their work with sketch-maps, and this is an excellent habit.

The book is in itself too “sketchy” for a youthful student. It is meant to be used in conjunction with a good atlas, but should also be supplemented by a more detailed text-book. It may then be a valuable aid to teachers.

*Pneumatic Conveying.* By E. G. Phillips. (Pitman's Technical Primers.) Pp. xii + 108. (London: Sir Isaac Pitman and Sons, Ltd., 1921.) 2s. 6d. net.

PNEUMATIC conveying is one of the so-called labour-saving devices, the usefulness of which has been recognised only comparatively recently. In the little book under notice Mr. Phillips sets forth the principles underlying the construction of pneumatic conveying systems and gives an account of some of the various uses to which this means of transport can be adapted. The first portion of the book deals with the different systems in use, and pumps, dischargers, pipe lines, suction nozzles, and other details of the necessary plant are described. Then follow chapters on grain and coal-handling plants and on the induction and the steam-jet conveyor. The concluding chapter recounts some of the multitudinous uses to which this extraordinarily adaptable and flexible method of transport can be put.

*Small Single Phase Transformers.* By Edgar T. Painton. (Pitman's Technical Primers.) Pp. x + 95. (London: Sir Isaac Pitman and Sons, Ltd., 1921.) 2s. 6d. net.

THE scope of this practical little volume is sufficiently indicated by the sub-title, “Explaining a Commercial Method of Design. Making Possible Economy of Material and Accurate Predetermination of Characteristics, and Giving Information Enabling the Amateur to Design and Construct a Transformer Meeting his own Requirements.” The same attention does not appear to have been given hitherto to effecting economies in the design of very small transformers as to that of large apparatus, and the author's way of attacking the problem should prove of use in this respect.