

a compass, the book is far from being a mere catalogue of names, facts and dates. The author's style gives life to his descriptions; he has the happy faculty of seizing upon the salient points of his subject and vivifying them by allusion, comparison and quotation. Interest, too, in the text is greatly increased by the large number of portraits with which it is illustrated, a feature that especially distinguishes the book in comparison with its predecessors.

In covering so vast a field errors are almost unavoidable; nevertheless the number to be noted in Dr. Garrison's book is so small that it seems almost invidious even to mention them. It hardly seems just, however, to speak (p. 78) of Galen as "little of an anatomist." Surely the writing of such a treatise as the "*De Anatomicis administrationibus*" in the second century marks its maker as one of the greatest of anatomists! The title of Averroes' great work (p. 89) is not "*Ketab*," but rather "*El-Kollijat*," of which the word "*Colliget*" is merely a transliteration. Mention should surely have been made (p. 149) of the splendid "*Quaderni d'Anatomia*" of Leonardo, at present being edited by Dr. Hopstock and his colleagues. The discovery of the pancreatic duct by Wirsung (p. 180) was made in the dissecting room of Vesling and not in that of Vesalius. The statement (p. 602) that "twins always have the same sex" is manifestly in need of correction. There are also a few obvious minor slips, and one must regret the omission from the bibliographic appendix of such works as the excellent *Vorlesungen* of Professor Ernst Schwalbe, Le Clerc's "*Histoire de la Medicine Arabe*," Lauth's "*Histoire de l'Anatomie*" and Medici's interesting "*Compendio storico della Scuola Anatomica di Bologna*."

But such errors and omissions are of little account beside the general excellence of the work. Its thoroughness, conciseness and clearness bespeak for it the fullest appreciation from all who are interested in the past and future of medicine.

J. P. McM.

*Stammering and Cognate Defects of Speech.*

By C. S. BLUEMEL. 2 vols. New York, Stechert and Company. 1913.

The first volume is called "*The Psychology of Stammering*" and the second reviews critically many of the current systems for the treatment of speech defects. The first hundred pages of Volume I. are employed in a popular exposition of such psychological facts and opinions as the author may later need in his description of the etiology of stammering. The chapter headed "*The Brain*" deals rather dogmatically with some of the mooted questions of cortical localization and lacks many references to original sources. The chapter on aphasia is well handled and serves as an excellent introduction to the author's thesis that "the stammerer's difficulty is transient auditory amnesia" (p. 187). It is well shown that this amnesia attaches to the vowel sounds, especially to the more obscure ones, and that it is characteristic of the audito-moteur rather than of the subject possessing predominantly the visual type of imagery. We have already (pp. 98 and 103) been prepared for this position by the foregoing discussion concerning the necessary incitation for voluntary speech. This, it is held, always involves kinesthetic imagery, auditory imagery being supplementary and functioning chiefly in vowel production. Consonant production may be actuated by kinesthetic imagery alone, but not so the formation of the short and relatively "colorless" voice sounds. When the auditory imagery is temporarily lost or weakened the more obscure vowel sounds become impossible of production and stammering results. This position is strengthened both by introspection and by the records of speech cases, and if correct is of the utmost value in indicating the appropriate treatment for stammering.

Volume II. includes an excellent account of current systems of training, treated under the chapter titles: *Respiration, Vocalization, Articulation, Verbal Exercises, Mechanical Appliances and Psychological Methods.*

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