

OUR BOOK SHELF.

The Basic Law of Vocal Utterance. By Emil Sutro. Pp. 124. (London: Kegan Paul and Co., Ltd., n.d.)

Duality of Voice and Speech. An Outline of Original Research. Pp. vi+224. (London: Kegan Paul and Co., Ltd., n.d.)

Duality of Thought and Language. An Outline of Original Research. Pp. viii+277. (London: Kegan Paul and Co., Ltd., n.d.)

THE first of these volumes, which was originally published in America in 1894, contains the starting point and main beliefs of the author; the second and third volumes form the amplification and illustration. Beginning with the practical problem of finding how a foreigner, especially a German, can learn to speak English correctly, Mr. Sutro has gone on until he has become convinced that he has discovered several most important scientific truths, and that he has a great mission to carry out in proclaiming them.

Among the discoveries stated in these volumes the following may be mentioned. There are two streams in the air which is breathed, which keep separate, one being for respiration, the other for sound. A person who breathed correctly might use the air supplied by the sound current in such a way as to speak for ever without taking breath, were it not for fatigue. For English speech we inspire through trachea and expire through œsophagus; for German the direction is reversed. The author has discovered a new vocal cord in the lower jaw. Air passages are diffused through the body; it is through these that the emotional nature of sound is produced. The original source of tone production has its location in the lungs, the kidneys, and the bladder for the most part. For the utterance of a word representing a flower there is an impression made on the right side of the thigh, while the expression is on the left side just opposite, the order being reversed for the corresponding German word. Just how we breathe into and out of the pelvis the author expects to explain satisfactorily in a future volume. Statements such as these, together with philosophical reflections and practical discussions as to the way in which the production of different sounds should be managed, fill the three volumes.

The volumes are not without a certain kind of interest—that of observing the process by which a man, who is evidently in earnest, comes to elaborate and believe such nonsense. It is at the same time possible that there may be in the remarks regarding the way in which sounds should be produced something which would be suggestive to one engaged in the practical work of teaching in this subject. According to Mr. Sutro, America has left his works almost unnoticed, while Germany has given a more favourable reception to them. It appears that an International Physio-Psychic Society has been founded for the propagation of the views put forward in these volumes.

A Select Bibliography of Chemistry, 1492-1902. By H. C. Bolton. Second supplement. Pp. 462. (Washington: Smithsonian Institution, 1904.)

THE present volume of the "Select Bibliography" is the second supplement which has been published since the first issue in 1893, and carries the work down to 1902.

One can only admire the patient labour of the author, now unfortunately removed by death, who has placed in the hands of chemists all over the world a book of reference of such permanent value.

The supplement contains the titles of books published between 1898 and 1902 inclusive, in which the

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same subdivisions are preserved as in the first volume. It is just a question whether the last subdivision—academic dissertations—which fills nearly half the book, is worth the trouble it has entailed. It consists almost entirely of the titles of dissertations for the German doctorate, which in Germany often find their way into booksellers' hands, but are merely reprints of memoirs that have appeared in the scientific journals. The list is necessarily incomplete, and the trouble of indexing it must have been enormous. The proof-reading, as well as the preparation of the index, have been done by Mr. Axel Moth, of the New York Public Library. J. B. C.

Hints on Collecting and Preserving Plants. By S. Guiton. Pp. ii+55. (London: West, Newman and Co., 1905.) Price 1s.

THE collector of plants, whether he is merely pursuing a hobby or whether his object is to acquire specimens for reference which will enable him to get a better knowledge of systematic botany, ought to be acquainted with the best methods of preparing and arranging a herbarium. For information he will find this small book useful. Some of the suggested details are not absolutely necessary, but a little experience will soon show which are essential. In some respects Mr. Guiton tends to what one may call the collector's views, as, for instance, when he recommends gumming the specimens on cardboard; the more usual practice of fixing them by means of gummed slips on drawing paper is cheaper, and allows the specimens to be taken off for examination. The preference of iron grids in place of wooden ventilators, the advantages of cotton mattresses, and other such details which might be suggested are rather matters of individual taste; so long as a collector takes as much care as Mr. Guiton, his herbarium will be a pleasure, not only to himself, but also to kindred botanists.

Practical Retouching. By Drinkwater Butt. Pp. xv+78. (London: Iliffe and Sons, Ltd., 1904.) Price 1s. net

THIS book forms No. 10 of the *Photography* Bookshelf Series, and will be found a useful addition. The matter contained in it originally appeared in the pages of *Photography* in 1901, but the author has brought the information up to date and presented it in the present form, which will be found convenient for beginners. The chapters are eight in all, and after the preliminary ones dealing with things to be done and to be avoided, and the apparatus and material required for the work, we have those on general manipulations, manipulations in detail of portrait work and inanimate objects, concluding with the use of the back of the negative for further hand-work.

Stories from Natural History. By Richard Wagner. Translated from the German by G. S. Pp. viii+177. (London: Macmillan and Co., Ltd., 1904.) Price 1s. 6d.

THESE interesting stories dealing with subjects of natural history are presented in excellent English. The translator's style is graceful, and the language chosen is of a kind which will appeal to children; while the scientific information is sound as well as instructive. A young reader should learn incidentally a great deal about animal life, and at the same time be given sympathetic interest in it. The little volume is suitable for a reading book in the higher standards of the elementary school and for the lowest forms of a secondary school.