

further reading; and the larger treatises, giving full explanations of the matter in hand, will not be long unread. In short this treatise lays the foundation for a thorough microscopical training, entirely adapted to the wants of medical students.

It is printed only on one side of the page throughout, so that the blank page is open for notes, and by using the opportunities presented with wisdom, the book may acquire, in the hands of an industrious student, a doubled value.

We may note that there are some points that even with the restricted object of the book we think might have received fuller, or even more accurate treatment. A fuller treatment might certainly have been given to the subject of "oblique light," which is very lightly touched; but which is none the less, to the partially instructed, whether medical student or ordinary amateur, one of the most prolific and frequent sources of erroneous judgment and entire misinterpretation; and we believe that no treatise on microscopic work, whatever its object, can be thoroughly efficient without giving it grave and careful consideration.

On the other hand it would have given greater value from the point of accuracy if the details given for the "Centring and arrangement of the Illuminator," by which is meant the sub-stage condenser, had been of a somewhat later period. On the use—the right use—of the condenser much of the best English work of the past quarter of a century has been spent. Happily German microscopists and opticians have during the past seven or eight years begun to perceive the value, nay, indispensable importance, of this apparatus, and the firm of Zeiss have, through Abbe, made successively chromatic, and subsequently achromatic condensers of increasing value. We trust they may be induced to follow English opticians and make apochromatic condensers, especially one adapted in numerical aperture to their latest optical triumph in lenses, viz., that possessing a N.A. of 1.60; the full value of which as an apochromatic objective can never be seen without it. It is a pleasure to note that Prof. Gage tells us that "for all powers, but especially for high powers," the condenser is of "great advantage." We believe it for the highest results, even with "low" powers, to be indispensable. But it will never be by the employment of "a pin-hole diaphragm . . . put over the end of the condenser" so that this aperture shall appear in the middle of the field, that the best possibilities of the condenser will be reached. The student is plainly told that the "optic axis of the condenser and of the microscope should coincide," but the best way of securing this coincidence is certainly not stated.

The blemishes of the book are nevertheless few, it has a decided purpose, and there is a large sphere for its action. We believe that another edition will not long hence be called for in which its author will not find it difficult to emend and expand it in certain parts, and possibly still further to enlarge it, and we will add that we think it may not only prove of value to the students in the Anatomical Department of the Cornell University, but also to others on both sides the Atlantic.

W. H. DALLINGER.

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OUR BOOK SHELF.

An Elementary Text-book of Magnetism and Electricity.
By R. Wallace Stewart. Univ. Corr. Coll. Tutorial Series. (London: W. B. Clive and Co., 1892.)

IN this work Mr. Wallace Stewart presents us with another of his excellent text-books on elementary science. Just as his treatment of the subject was concise and clear in his book on heat and light, so here he has followed the same lines, and has placed before the student, especially one who is preparing for the matriculation examination of the London University, a course in magnetism and electricity which will give him a thorough knowledge of the subject and a sound basis on which to make further study. The illustrations and diagrams will be found to form a valuable addition to the text, while the numerous examples at the end of each chapter, if thoroughly worked out, should give a student a good insight into the art of solving problems.

Key to Arithmetic for Beginners. By J. and E. J. Brooksmith. (London: Macmillan and Co., 1892.)

THIS key will be welcomed by all those who are employing Mr. Brooksmith's excellent arithmetic. It has been prepared especially for the use of teachers, who will find it a valuable aid in their work, but no doubt it will be largely demanded by those who are studying this subject for themselves, for much may be learnt by a judicious use of such a book. The examples, so far as we have been able to see, have been very carefully and concisely worked out, and many difficulties that usually arise have here received careful attention.

LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

International, Geological, and other Records.

MY friend Mr. Minchin's letter has opened a question that I have been ruminating for a very long time. We occasionally hear of the organization of science, but the very ABC is at present neglected, or carried out in a spasmodic and disjointed manner. Let us take for example geology. We have several attempts at a catalogue and review of its yearly literature, of which I give the following examples. First comes the "Geological Record," a publication very well in its way, but making its appearance at irregular intervals, and often much behind time. We have in Prof. Blake's Annual the attempt of a single individual to cope with a mass of literature that it is impossible for him to read, and treating of questions that no single person is or can be qualified to deal justly with. The very obvious result of this is careless reviewing, and general dissatisfaction of most authors whose papers are submitted to the abstracting process. I hope Prof. Blake will not take these words as a disparaging appreciation of his attempt, which I think does him much credit as a single-handed worker, but it will not satisfy the geologists in general. Next we have the "Annuaire Géologique Universel," for which great credit is due to Drs. Carey and Agincourt. Here we have the geological literature of each country treated separately, followed by a subject literature. Each article is compiled by a specialist in his own branch, and one who is able to form a just opinion of the work and appreciate the salient points of it. Altogether the organization of the "Annuaire" is on the right lines, but I understand it is not a financial success, and I have very grave doubts if it will continue, because the supporters of one publication cannot be the supporters of several. The motto "L'union fait la force" is as true in this case as in any other. Then again there is not that official character about it that there would be with international co-operation, supported by governments, scientific societies, &c. As two years' collaborator for the subjects of seismology and