## FIVE ELEMENTARY TEXT-BOOKS OF HYGIENE

A Manual of Health Science. Adapted for Use in Schools and Colleges and suited to the Requirements of Students preparing for the Examinations in Hygiene of the Science and Art Department, &c. By Andrew Wilson, F.R.S.E., F.L.S. (London: Longmans, Green, and Co., 1885.)

The Laws of Health. By W. H. Corfield, M.A., M.D. (Oxon.). (London: Longmans, Green, and Co., 1880.) Principles of Hygiene. Expressly Adapted to the Requirements of the Syllabus of the Science and Art Department, South Kensington. By Albert Carey, F.R.G.S. (London: Thomas Murby.)

Hygiene. Its Principles as Applied to Public Health. Adapted to the Requirements of the Elementary and Advanced Stages of the Science and Art Department, the Sanitary Examinations at the Universities, &c. By Edward F. Willoughby, M.B. Lond., San. Sci. Cert. Lond. & Camb. (London and Glasgow: W. Collins, Sons, and Co.)

Hygiene: a Manual of Personal and Public Health. By Arthur Newsholme, M.D. Lond. (London: Geo. Gill and Sons, 1884.)

THESE works are partly if not principally intended for the use of students of the Science and Art Department, South Kensington. It is very essential, therefore, that not only should the matter be put in a pleasant and readable form, but that there should be no serious errors, as students of elementary works cannot be expected to recognise errors as such, from any knowledge they may possess on allied subjects. In fact they, and many others besides, find a difficulty in conceiving that what is printed in a book need not necessarily be correct. It is also necessary that the chapters should be well arranged, with the matter well assorted under headings, and that nothing of importance should be omitted.

"A Manual of Health Science," by Andrew Wilson, F.R.S.E., F.L.S., cannot be said to be in agreement with the above principles. Many of the chapters are illarranged, and important points are omitted, especially in the chapter on Removal of Waste. It is not by any means free from errors, of which we may cite a few as specimens: thus on p. 20 it is stated that "the solids" of the gastric juice "amount to over 990 parts per 1000, the remainder being water;" if such were really the case, the juice instead of being a liquid like water, would be a solid of a very dense character. Again, on p. 80, "the cistern" for drinking water "becomes a necessary article of furniture in our houses on any system," whereas the chief advantage of a constant supply is that cisterns for drinking water are unnecessary. Again, at p. 91, it is stated that "each individual exhales about 6 cubic foot CO2 per 24 hours" instead of per hour. At p. 112 we find that "propulsion draws foul air out, and aspiration drives fresh air in." There are several other misstatements, but the above will suffice. An unnecessary amount of space is devoted to soaps and hair-washes. The notice of a soap of a particular manufacturer in a work of this class is, we think, undesirable as having somewhat the character of an advertisement. The illustrations, which are numerous, are very good.

"The Laws of Health," by Prof. Corfield, M.D., is a very valuable little work, and although not originally intended to form a class-book for the Science and Art Department, is admirably adapted for this purpose. It contains nearly all that it is necessary to know in a very small compass, and bears throughout the impress of the high scientific attainments and practical knowledge of the author. The chapter on Small-Pox and Vaccination is especially good, and its arguments very convincing.

"The Principles of Hygiene," by Albert Carey, F.R.G.S., is only of use for the first or elementary stage in Hygiene of the Department, although it is not so stated in the preface. The book is without illustrations, a great drawback to elementary students; and a good deal of space is devoted to matters of only secondary importance. It is therefore but moderately suited for the class of readers for whom it was written.

"The Principles of Hygiene," by E. F. Willoughby, M.B., S.Sc.C. Lond. & Camb., is intended for the use of students of all three stages of the Science and Art Department. It is also very well suited for the preparation of candidates for the University Examinations in Public Health. We can speak highly of this work, which contains sound and useful information on every subject necessary for the above courses, and is well up to the latest improvements and most generally received opinions in the science of which it treats. In our opinion it is perhaps better adapted for the advanced and honours students than for the elementary, as some parts intended for the latter are somewhat needlessly complex. chapter on Vital Statistics is likely to be extremely useful to the University candidates, this somewhat difficult subject being here ably and intelligently treated.

"Hygiene, a Manual of Personal and Public Health," by A. Newsholme, M.D. Lond, is very well suited for students in the elementary and advanced stages. They will find here all that they require to know in an easily assimilable form. We do not, however, agree with Dr. Newsholme in thinking the "Banner" system of drainage one to be recommended, and our opinion coincides with that of several practical sanitarians. In every other respect the subject is ably treated by the author, and his work deserves a wide circulation amongst the science teachers of the country.

## OUR BOOK SHELF

Euclid, Book I.; with Notes and Exercises for the Use of Preparatory Schools and Candidates preparing for Naval Cadetship and Sandhurst Preliminary Examinations. By Braithwaite Arnett, M.A. (Cambridge: Deighton, 1885.)

As the examinations for which this work is intended to prepare pupils rigidly require what are called Euclid's proofs we have here merely an edition mainly on the lines of Simson's text. This text is so presented that the pupil may see how to write out his "props" in such a way as shall please the examiner. Everything is done that can be done by another to secure success. That the pupil may not be physically incommoded more than is absolutely necessary the text is so printed as to involve the minimum of exertion.

On the sinister page of the open volume behold the text printed as the dreaded examiner desires to see it broken up, each new step in the reasoning claiming a fresh line, the figure correctly drawn (a really important