

ment, the imitation of seal impressions, the forgery of postage stamps, and the examination of handwriting are also briefly touched upon in this section, whilst there is a cognate section upon the detection of robbery from letters and parcels in transit.

Other subjects which are discussed include the examination of dust and stains, the development of finger-prints, the investigation of the cause of fires and of damage to crops, and the examination of fibres, ropes, and clothing. In each case references to literature on the subject are appended, and illustrative cases usually given.

Regarded as a whole, the book should be welcomed by every chemist whose work is likely to include any problems in which legal questions are involved, and it might well be made the nucleus of a more comprehensive work on forensic chemistry. It is sometimes urged against the publication of details of scientific methods as applied to the detection of crime, such as are given here, that it is dangerous to provide prospective criminals with information in a convenient form for reference; but this objection applies with more cogency to the publication of the scientific methods of combating the adulteration of food. The adulterator is frequently waiting to be made acquainted with the scientific drawbacks of his methods, whereas the persons who commit other forms of fraud are nearly always without scientific training and, if they were to attempt to avoid one scientific pitfall, would be almost certain to fall into another.

C. A. M.

### Our Bookshelf.

*Optical Projection.* By Lewis Wright. Fifth edition, rewritten and brought up to date by Russell S. Wright. (In two parts.) Part i., *The Projection of Lantern Slides.* Pp. viii+87. (London: Longmans, Green, and Co., 1920.) Price 4s. 6d. net.

THIS completely revised edition of Mr. Lewis Wright's book is very welcome. We are glad to see that the oil-lantern, which is so handy in small class-rooms and in the huts of camps, is still regarded as a possible projector. It may be mentioned that if this lantern is filled for each occasion, and set up lighted in an adjacent room, or, better still, in the school-yard, for forty minutes or so before the lecture, all risk of producing offensive fumes will be avoided. In regard to screens for such class-rooms, may we add that a square of mounted diagram-paper, which is made 5 ft. wide, gives an excellent surface, and can be kept rolled up and fixed with large drawing-pins as required? Lastly, when Mr. R. S. Wright gives suggestions as to flash-signals, should he even tolerate the "next slide" system of com-

munication with the operator? The recently introduced silent wave of the pointer has escaped mention in this useful treatise.

G. A. J. C.

*Elementary Agricultural Chemistry: A Handbook for Junior Agricultural Students and Farmers.* By Herbert Ingle. Third edition, revised. (Griffin's Technological Handbooks.) Pp. ix + 250. (London: Charles Griffin and Co., Ltd., 1920.) Price 5s.

THERE are no essential differences between this and the second edition of Mr. Ingle's book. The volume provides an excellent introduction to its subject in a form which should be intelligible to the practical agriculturist as well as to the scientific student. It contains a number of interesting and useful tables, and on account of its very reasonable price it should be popular with students of agriculture. Although described on the cover as "A Practical Handbook," it contains no account of experiments or methods of analysis, but these would no doubt have increased the size of the book beyond the limits desired.

*Luck, or Cunning, as the Main Means of Organic Modification? An Attempt to Throw Additional Light upon Darwin's Theory of Natural Selection.* By Samuel Butler. Second edition, re-set, with author's corrections and additions to index. Pp. 282. (London: A. C. Fifield, 1920.) Price 8s. 6d. net.

THIS is a reprint of the first edition published in 1886. The only important changes are in the index, which has been considerably enlarged by additions made from notes by the author in a copy of the first edition. As is announced in the introduction, the book is written round Samuel Butler's favourite theories, "the substantial identity between heredity and memory," and "the re-introduction of design into organic development."

*Notes on Chemical Research: An Account of Certain Conditions which apply to Original Investigation.* By W. P. Dreaper. Second edition. (Text-books of Chemical Research and Engineering.) Pp. xv+195. (London: J. and A. Churchill, 1920.) Price 7s. 6d. net.

THE first edition of this stimulating work was reviewed in NATURE for February 6, 1913. The new edition is divided into two portions, the first dealing with the history and method of research, and the second with modern works practice. A chapter in the latter portion is given up to the consideration of the training desirable for a research student. An index would have been helpful.

*Spiritual Pluralism and Recent Philosophy.* By C. A. Richardson. Pp. xxi+335. (Cambridge: At the University Press, 1919.) Price 14s. net.

THE author examines the Weber-Fechner law of sensation and shows that "unperceived sense-data," such as are sometimes deduced from it, are not logically admissible. He expresses spiritual