

Technical schools should make every endeavor to develop men who are capable of advancing the art and who are not mere followers of "best practise," an end that may be secured by the more general use of books of this type. The reviewer agrees thoroughly with the author's point of view and in general with his methods; minor criticisms seem unnecessary. The lack of reference to the work of others is noticed. The abbreviation of "logarithm" to \ln , in the same font as is used for expressing quantities, seems undesirable; thus, $\ln i$ is not recognized at once as the familiar $\log i$. Some statements in regard to units might well be qualified by the insertion of "sometimes used" or of some similar phrase; since, for example, no electrical congress has recommended the "gilbert" or the "abvolt," objection may be taken to the statements that the C.G.S. unit of magnetic potential difference is the "gilbert" (p. 92) and the C.G.S. unit of electric potential difference is the "abvolt." In general, however, the phraseology is precise.

FREDERICK BEDELL

Electro-Analysis. By EDGAR F. SMITH, Professor of Chemistry and Provost, University of Pennsylvania. Fifth edition. Philadelphia, P. Blakiston's Son & Co. 1911. 12mo. 332 pages, 46 illustrations, flexible leather binding. Price ?

The revised and enlarged edition of this attractive and useful book contains, as new material, the essentials of all that has appeared upon electro-analysis during the past four years. The author particularly emphasizes his continued success in using the mercury cup and his conviction of its wide utility in electrolytic analysis. To those unfamiliar with the previous editions it may be said that the work contains practically everything of value extant in electro-analysis, presented in most attractive and available form, and that possibly half of the whole subject matter is the direct work of Dr. Smith and his students and assistants. It is quite pertinent to call attention to the fact that many of the methods of

exact quantitative separation and precipitation used in electro-analysis are borrowed from and constitute modifications of industrially applied processes; this is especially true of the mercury cathode methods; reciprocally it is even still more evident that many valuable industrial processes have evolved from the laboratory investigations and the exact manipulations of electro-analysis, and yet more are waiting to be developed. This reciprocal excitation of laboratory and works is a particularly gratifying object lesson in modern scientific and industrial interdependence. We therefore recommend the book most heartily, not only to chemical analysts, but just as strongly to technical electrochemists studying the problems of electrochemistry, both in the research laboratory and in the works.

JOSEPH W. RICHARDS

*THE HABITS OF FLIES OF THE GENUS
CORDYLOBIA, PARASITIC ON MAN
IN AFRICA*

In Africa the larvæ of certain flies (*Cordylobia*) of the family Muscidae are parasitic under the skin of man and other warm-blooded animals in the same manner as are the larvæ of many of the flies usually grouped together as Cæstridæ. Until recently the manner in which *Cordylobia* infected its host was unknown. Independent results have now thrown light on this question.

Monsieur E. Roubaud, in the *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences* of the 23d of October, 1911, presents the results of his studies of the "Ver du Cayor," *Cordylobia anthropophaga* Blanchard. The larva is found under the skin of man and domestic animals. In the Cæstridæ, with the forms found in tumors under the skin, two distinct modes of infection of the host are known. In both cases the eggs of the fly are laid upon the host. In one case the newly hatched larvæ penetrate at once to their proper habitat, but in the other the eggs are swallowed by the host and the newly hatched larvæ bury themselves in the tissues of the œsophagus and only reach the surface after protracted wanderings within the body of