

Since Nebraska has become the second beet-sugar producing state in the union, parties interested in the subject naturally look to the bulletins of the Nebraska station for reliable information on the subject. They will find much important matter in this report. The work has been carried out on a larger scale than is usual in experiment station work. Under the head of fertilizers for beets it is stated that the use of "guano" seemed to be injurious to the beet. It is to be regretted that the actual composition of this "guano" is not given, as the "guano" now sold is often very different in origin and composition from the guano of standard reference books.

All the articles are fully illustrated by cuts, plates, and charts which add very materially to the interest and value of the volume.

H. A. HUSTON.

ELECTRO-CHEMICAL ANALYSIS. BY EDGAR F. SMITH. pp. 139, 27 illustrations. 2d Edition. Price \$1.25. Philadelphia: P. Blakiston, Son & Co. 1894.

It is to Germany that we are accustomed to look for the scientific thoroughness which characterizes this little volume. Prof. Smith has long been known as an indefatigable worker in the field of electrolysis, and is a frequent and regular contributor to its literature. In this manual he presents, in clear and precise language, all that has stood the test of experience, and he deserves praise for avoiding to give undue prominence to his own methods. The very interesting chapter which he devotes to an historical sketch of the subject will doubtless serve to dispel erroneous notions that are entertained by many chemists regarding the authorship of certain methods.

In this new edition the character of the original work is preserved, but the additions show that the author has not allowed any recent publications of importance to escape his attention. Amongst others we note references to the interesting work of the Munich Polytechnic School, the valuable experiences of Elbs and of Oettel, and especially the excellent work that has been done in the laboratory of the University of Pennsylvania since the appearance of the first edition.

There is, no doubt, that we have here the most accurate, as well as the most complete work that has been written on electro-chemical analysis.

H. F. KELLER.