which changed the refining practise as did the Arents siphon tap the blast-furnace work, and the systematization of the complications in the Parkes process, which is more largely due to E. F. Eurich than to anybody else, and which forms the basis of the modern American practise. We miss also any record of some early eastern refineries, as, *e. g.*, the Delaware Lead Works at Philadelphia, and other smaller plants around New York. Chapters V.–XII. give a detailed history of the mining and metallurgical operations of the several states and territories. The production of metal at different periods is usually given, although in some cases, *e. g.*, in Montana, the data are missing. The remaining 55 pages of the 255 given to lead deal with the statistics of production, consumption and prices, with the commercial conditions, the tariff on lead, the labor conditions and with trade agreements and combinations.

The second part, which takes up 90 pages, treats of the history of zinc according to the same general plan as followed with lead. The mechanical concentration of zinc ores, which plays such an important part in the treatment, receives a separate chapter. The chapter on the metallurgy of zinc, the author's specialty, contains a critical review of the different types of distilling furnaces which have been and are used in this country; it is a chapter which every metallurgist will study with profit and pleasure.

The book, as a whole, is most satisfactory, as it is replete with valuable information presented in an interesting way. Last, but not least, it has a full index which enables the student to look up points upon which he desires enlightenment.

H. O. Hofman

## *SCIENTIFIC JOURNALS AND ARTICLES*

*The American Naturalist* for January begins with the first part of a paper by Robert F. Griggs, on "Juvenile Kelps and the Recapitulation Theory." J. Stafford describes "The Larva and Spat of the Canadian Oyster," giving special attention to the microscopic stages mostly omitted in the work of W. K. Brooks. Waldemar Jochelson presents some interesting notes on "Traditions of the Natives of Northeastern Siberia about the Mammoth" and there are other notes on "The Age of Trotting Horse Sires" and "The Influence of Environment upon Animals."

*The American Museum Journal* for January has articles on "The Duck Hawk, Hackensack Meadow, and Egret Groups," "Two Noteworthy Museums" (the Congo Museum, Brussels, and Senckenburg Museum, Frankfurt), "The International Tuberculosis Exhibition" and "An Ethnological Trip to Lake Athabasca," besides notes, lists of members elected since the last issue, and the lecture announcements.

*The Bulletin of the Charleston Museum* for December gives an account, with plan, of "The New Building" which contains the collections, library and lecture room. A note on "The History of the Museum" shows that so late as 1843 it was still under the auspices of the Literary and Philosophical Society of Charleston.

*The Museum News* of the Brooklyn Institute for January contains an article on "The Hoatzin," by Geo. K. Cherrie, which gives a very full account of this interesting bird and includes a considerable amount of new information gathered by Mr. Cherrie. A note on the leather-back turtle given by the New York Aquarium, states its weight to have been a little over 840 pounds; extreme length, following curve, 6 feet, 10 inches, from flipper to flipper over shoulders, 8 feet, 9 inches. The Children's Museum section gives "Some Evidences of Progress in 1908" in the matters of increased attendance by both children and teachers, and an increasing use of the collections and library.

## *BOTANICAL NOTES*

### PHYSIOLOGY AND ECOLOGY

Alfred Dachnowski's brief paper on "The Toxic Property of Bog Water and Bog Soil" (*Bot. Gaz.*, Aug., 1908) is an attempt to contribute something to the solution of the problem of bog conditions so far as vegetation is concerned. Studies were made of a bog island in Buckeye Lake in central Ohio which ap-