the elements are taken up in series beginning with hydrogen. Under each element all the more important facts concerning it and its compounds find mention. A great many graphic formulas and equations are here given. The rare elements are also briefly noticed. A very large amount of information together with the latest and newest facts is here brought into small compass. The statements are clear and concise and the book is remarkably free from errors. There are few important omissions. The transition point of mercuric iodide is given, but not that of sulphur nor that of tin. Freezing mixtures are mentioned, but no explanation is given of their action. On the whole, however, this is an excellent text-book, it is planned on new and original lines and it deserves the careful consideration of all teachers of chemistry.

EDWARD H. KEISER.

SCIENTIFIC JOURNALS AND ARTICLES.

The Bulletin of the College of Charleston Museum for January contains the report of the director, Dr. Paul M. Rea, and is an encouraging account of progress, though under difficulties. The museum has important collections and, as Dr. Rea points out, with the funds and assistance necessary to put these in order and make them available to the public, will become an important educational factor.

Bird Lore for January-February has for its most extended article the Sixth Christmas Bird Census, containing records from Maine to Louisiana and British Columbia. There are good illustrated articles on 'An Experience in Tree-top Photography,' by Bert F. Case; 'My Chickadee Family,' by Marion Bole; 'The Dipper in Colorado,' by Evan Lewis, and 'The Little Green Heron,' by Rett E. Olmstead. In the report of the Audubon Societies it is noted that the murderer of Game Warden Bradley was not even indicted. As an offset to this are the resolutions passed by the Millinery Jobbers Association at the Louisville Convention, pledging themselves not to buy song birds, gulls, grebes or herons after January 1, and not to sell after July 1, 1906.

The Zoological Society Bulletin for January contains a well-illustrated article on the 'Pheasant Aviary and its Inmates' which comprise forty species of gallinaceous birds. The 'Founding of a New Bison Herd in the Wichita Forest Reserve' is announced and it is hoped this may lead to the starting of herds in other localities while the bison are yet available. It is stated that the female giraffe received in 1903 has grown one foot and eleven inches and the male two feet and ten inches, the one standing twelve feet high, the other thirteen feet and six inches. Barring accidents, they should before long reach their full height of between sixteen and seventeen feet. There is an article with several good pictures of the smaller cats and, finally, a summary of the larger items of work accomplished during 1905.

SOCIETIES AND ACADEMIES.

AMERICAN PHYSICAL SOCIETY.

THE annual meeting of the Physical Society was held in Fayerweather Hall, Columbia University, New York City, on Friday, December 29, and Saturday, December 30, 1905.

The presidential address of President Barus, on 'Condensation Nuclei,' was delivered on Saturday, December 30, at 11 A.M.

Friday afternoon, December 29, a joint session of the American Physical Society and the American Mathematical Society was held in Havemeyer Hall, at which a paper on the 'Experimental Demonstration of Hydrodynamic Action at a Distance' was presented by Victor Bjerknes.

The following papers were presented:

A. W. EWELL: 'The Electrical Production of Ozone.'

E. RUTHERFORD: 'Some Properties of the Alpha Rays from Radium, II.'

E. RUTHERFORD: 'On the Magnetic and Electric Deviation of the Alpha Rays.'

E. P. ADAMS: 'The Absorption of Alpha Rays in Gases and Vapors.'

H. A. BUMSTEAD: 'The Heating Effect produced by Röntgen Rays in Different Metals and