

Richardson, Leon B., instructor in chemistry, Dartmouth College, Hanover, N. H.

Riley, Mrs. Matilda E., art director, St. Louis Public Schools, Board of Education Building, St. Louis, Mo.

Rogers, Howard J., chief of department of education and director of international congresses, Universal Exposition, St. Louis, Mo.

Schober, Wm. Bush, Lehigh University, South Bethlehem, Pa.

Shurtleff, Eugene, M.D., 73 Hancock St., Dorchester, Mass.

Sinclair, Cephas Hempstone, Coast and Geodetic Survey, Washington, D. C.

Smith, Alton Lincoln, assistant professor of drawing and machine design, Worcester Polytechnic Institute, Worcester, Mass.

Spaulding, Perley, Missouri Botanical Garden, St. Louis, Mo.

Stewart, George Walter, professor of physics, University of North Dakota, Grand Forks, N. Dak.

Swift, Henry D., West Falmouth, Mass.

Thompson, Benj., chief engineer, T. & B. V. Ry. Co., Hillsboro, Texas.

Tiernan, Austin K., C.E., P. O. Box 441, Salt Lake City, Utah.

Torrey, Harry Beal, Ph.D., instructor in zoology, University of California, Berkeley, Cal.

Tower, Ralph Winfred, curator of physiology, Am. Mus. Nat. Hist., New York, N. Y.

Valentine, Morris Crawford, instructor in biology, High School, 259 West 131st St., New York, N. Y.

Veath, Arthur Clifford, U. S. Geological Survey, Washington, D. C.

Vogt, Frederick A., principal of Central High School, Buffalo, N. Y.

Wadsworth, Oliver F., 526 Beacon St., Boston, Mass.

West, Max, Ph.D., Treasury Department, San Juan, Porto Rico.

Wetherill, Henry Emerson, M.D., 3734 Walnut St., Philadelphia, Pa.

Whelpley, Dr. H. M., 222 South Broadway, St. Louis, Mo.

Woodruff, Lorange Loss, assistant in biology, Williams College, Williamstown, Mass.

Wrinch, Frank Sidney, Ph.D., instructor in experimental psychology, University of California, Berkeley, Cal.

Wylie, Robert Bradford, University of Chicago, Chicago, Ill.

SCIENTIFIC BOOKS.

General Zoology. Practical, Systematic and Comparative. By CHARLES WRIGHT DODGE. New York, American Book Company. Pp. 512; 379 figs.

As stated on the title-page, this work is a revision and rearrangement of Orton's 'Comparative Zoology.' It is evidently designed for elementary instruction in high schools, academies and colleges. About one third of the volume is devoted to a brief systematic review of the animal kingdom, the remainder to 'comparative zoology,' that is, a mixture of animal physiology, comparative anatomy, embryology, ethnology, distribution, etiology, etc. In the main, the work has been carefully written, though certain statements should be revised or corrected in a possible new edition. The insect figured as a cricket (*Gryllus*) on page 109 is a locustid, and the dragon-fly on page 111 is not a *Libellula*. The bird figured on page 172 is the resplendent trogon (*Pharomacrus mocinno*) and not *Trogon elegans*, which is a very different creature. Although the classification adopted is that of Parker and Haswell, the author includes the apocryphal group Mesozoa, at least in the 'ancestral tree' on page 201, though nothing is said about it in the text. *Amphioxus* is still regarded as a vertebrate, though this term is properly applicable only to the Craniota. In the chapter on the distribution of animals there are a few sweeping and inaccurate statements. On page 441 the author says: 'Each of the three great provinces, Earth, Air and Water, as also every continent, contains representatives of all the classes; but the various classes are unequally represented.' This sets one to wondering whether the American fauna may not comprise such things as flying tunicates and aerial holothurians, and whether terrestrial cyclostomes may not be discovered in the remoter regions of the 'dark continent.' In the chapter on the origin of animal species the definition of 'organic selec-

tion' is, to say the least, misleading. The word 'consciousness,' on the last page, is out of place in a text-book on zoology, especially when it is still a serious question whether this word should not be rigorously avoided even in works on comparative psychology. The binding, paper and typography are all that can be desired in a small work like that of Professor Dodge. The figures are clear, attractive and abundant. Perhaps there are proportionally too many figures of European and too few of American species, especially among the insects, for a book that will probably be more used in this country than abroad.

WILLIAM MORTON WHEELER.

SCIENTIFIC JOURNALS AND ARTICLES.

The Popular Science Monthly for December contains a careful discussion of 'Recent Theories in Regard to the Determination of Sex,' by T. H. Morgan, a history of 'The Academy of Science of St. Louis,' by William Trelease, and a description of 'The Tetrahedral Kites of Dr. Alexander Graham Bell,' by Gilbert H. Grosvenor. Dr. J. A. Fleming contributes the seventh and final paper on 'Hertzian Wave Wireless Telegraphy,' in which are presented some of the problems waiting for solution before it can be entirely successful. 'The Salmon and Salmon Streams of Alaska' are described by David Starr Jordan, the article containing an account of the food value of each species. 'The Storm Center in the Balkans,' by Allan McLaughlin, shows how the very mixed population of this region makes it a continual source of political trouble, while in 'The Growth of Rural Population' Frank T. Carlton shows the changes that have recently taken place in that direction. The concluding article, by the late R. H. Thurston, is on 'Rear-Admiral G. W. Melville, U.S.N., and Applied Science in Construction of the New Fleet.'

Bird-Lore for November-December contains 'An Island Eden,' by Frank M. Chapman, being an account of Gardiner's Island, N. Y.; 'The Turkey Vulture and Its Young,' by Thomas H. Jackson; the first of a series of articles on 'The Migration of Warblers,' by

W. W. Cooke, and the seventh series of portraits of *Bird-Lore's* Advisory Councilors. There are the usual notes and book reviews and reports of the Audubon Societies. This last includes 'Educational Leaflets,' No. 6, on the passenger or wild pigeon. It is announced that the papers on warblers will be illustrated by colored plates, and the present number contains two. Eventually the series will appear in book form.

The Journal of Comparative Neurology has somewhat enlarged its scope, and will hereafter be called *The Journal of Comparative Neurology and Psychology*. Professor C. Judson Herrick, of Denison University, will continue to be the managing editor, and Dr. O. S. Strong, of Columbia University, will continue to be one of the associate editors, while Dr. Robert M. Yerkes, of Harvard University, will become associate editor with special charge of the departments dealing with the functions of the nervous system and comparative psychology. A large board of cooperating editors has also been secured. The subscription price will hereafter be \$4, and the journal will hereafter appear bi-monthly, each volume containing about 500 pages.

PROFESSOR GIULIO FANO, of Florence, has decided to found a new periodical, to be entitled *Archivio di Fisiologia*. He will be assisted in the editorship by Professor Filippo Bottazzi, of Genoa. The *Archivio di Fisiologia* will especially concern itself with experimental work, but synthetic reviews and philosophical disquisitions will not be excluded. Papers will be published, according to the wish of the author, in one of the four official languages of the International Physiological Congress—English, Italian, German or French. The *Archivio di Fisiologia* will appear every two months, forming a yearly volume of about 500 pages.

The Museums Journal of Great Britain for November has papers on 'Copyright of Works of Art in the Museums of Great Britain,' by E. Ernest Lowe, which shows a very curious state of affairs; 'Early Monuments and Archaic Art of the Northeast of Scotland,' by W. M. Ramsay, and on 'Good Form in Nat-