

presence or absence of particular species in particular localities within their appropriate zones, but temperature predetermines the possibilities of distribution; it fixes the limits beyond which species cannot pass; it defines broad transcontinental belts within which certain forms may thrive if other conditions permit, but outside of which they cannot exist, be the other conditions never so favorable."

Grasses of Tennessee—Part II.—F. LAMSON-Scribner.—University of Tennessee, Agric. Exper. Sta. Bull., VII. 1-141, 187 figures. 1894.

The first part of this important work treating of the structure of grasses in general, issued two years ago, is now supplemented by the part here noticed, containing descriptions and figures of all species known by the author to inhabit Tennessee. Carefully prepared keys to the genera and species are a feature of the book. The cuts are good, although printed on paper hardly firm enough to bring them out to the best advantage. The descriptions are diagnostic and couched in strictly technical language; on this point it is remarked: "Attempts to avoid technical or 'hard' words often result in obscuring the meaning of the author, and an undue simplicity of expression is often apt to be offensive by implying a lack of intelligence on the part of the reader." As the book is intended primarily for the farmers of the State, this may be considered by some as a position of doubtful value.

It is to be regretted that the rules of nomenclature adopted by the botanists of the American Association for the Advancement of Science, which are practically those approved by the zoölogists, have not been strictly followed. This will seriously hamper the usefulness of the book, for some of the names used by Prof. Scribner have become obsolete.

N. L. B.

NOTES.

PHYSICS.

THE newly discovered gas is to be the subject of a discussion at a meeting of the Royal Society on January 31st, when Lord Rayleigh and Prof. Ramsay will present their paper. This will be the first meeting under a resolution of the Council of the Society passed last session, whereby certain meetings, not more than four in number, are to be devoted every year each to the hearing and consideration of some one important communication, or to the discussion of some important topic.—*Nature*.

PERSONAL.

THE University of Berlin is seriously crippled by the deaths of Helmholtz and Kundt. Their places cannot be filled, but Prof. Kohlrausch will probably be called to one of the vacant chairs.

THE *Physical Review* has published excellent portraits of Helmholtz, Kundt and Hertz, with biographical sketches by the editor-in-chief, Professor Nichols. Probably the best account so far published in English of the work of Helmholtz is that contributed to the *Psychological Review* for January by Professor Stumpf, of the University of Berlin.

MR. F. Y. Powell, of Christ's College, succeeds Froude in the Regius Professorship of Modern History at Oxford.

ZOÖLOGY.

A PICTURE-PUZZLE of a remarkable kind appears in the *Zoölogist* for December. It is a reproduction of two photographs of a Little Bittern, showing the strange attitude assumed by the bird to favor its concealment. One of the figures shows the bird standing in a reed-bed, erect, with neck stretched out and beak pointing upwards; and in this position it is difficult to distinguish the bird at all from the

reeds. The eye is deceived in a similar manner when the bird is crouching against a tree-stump at the river side. Mr. J. E. Harting thinks that the curious attitudes adopted by the bird, on finding itself observed, are assumed in the exercise of the instinct of self-preservation. He mentions a similar habit, observed and described by Mr. W. H. Hudson, in the case of South American Little Heron, which frequents the borders of the La Plata, and is occasionally found in the reed-beds scattered over the pampas. Without the aid of dogs it was found impossible to secure any specimens of this bird, even after making the spot where one had alighted.—*Nature*.

NEW PUBLICATIONS.

Astronomy and Astro-Physics will hereafter be called the *Astrophysical Journal* and will be published from the University of Chicago, under the editorship of Profs. Payne and Keeler and a board of the leading men of science in this department.

A monthly *Magazine of Travel*, somewhat practical and popular in character, will hereafter be published from 10 Astor Place, New York.

The Aeronautical Annual for 1895, soon to be published by W. B. Clarke & Co., Boston, will contain reprints of some early treatises on aeronautics, among them da Vinci's *Treatise on the Flight of Birds*, Sir George Gayley's *Aerial Navigation* (1809), *A Treatise upon the Art of Flying*, by Thomas Walker (1810), and Franklin's aeronautical correspondence.—*Critic*.

P. Blakiston, Son & Co. announce *The Dynamics of Life*, by William R. Gowers, M. D., of London.

SOCIETIES AND ACADEMIES.

THE TEXAS ACADEMY OF SCIENCE.

DECEMBER 31, 1894.

DR. HALSTED, President, in the chair.

JAMES E. THOMPSON; *Address*.

DAVID CERNA; *The phonetic arithmetic of the ancient Mexicans*.

WILLIAM KEILLER; *Descriptive anatomy of the heart*.

THOMAS FLAVIN; *Developmental anatomy and pathology of the kidneys*.

THOMAS U. TAYLOR; *Present need of engineering education in the South*.

ROBERT A. THOMPSON; *The storm-water storage system of irrigation*.

T. H. BRYANT, *Acting Secretary*.

NEW BOOKS.

Progress in Flying Machines. O. CHANUTE. New York, The American Engineer and Railroad Journal. 1894. Pp. iv+308.

Lectures on the Darwinian Theory. A. M. MARSHALL. Edited by C. F. MARSHALL. London, D. Nutt; New York, Macmillan & Co. 1894. Pp. xx+236. \$2.25.

Sea and Land. Features of Coasts and Oceans with Special Reference to the Life of Man. N. S. SHALER. New York, Charles Scribner's Sons. 1894. \$2.50.

Text-book of Invertebrate Morphology. J. F. McMURRICH. New York, Henry Holt & Co. 1894. Pp. 294. \$4.00.

The Planet Earth. An Astronomical Introduction to Geography. RICHARD A. GREGORY. London and New York, Macmillan & Co. 1894. Pp. viii+105. 60c.

Physiology for Beginners. M. FOSTER and LEWIS E. SHORE. New York and London, Macmillan & Co. 1894. Pp. ix+241. 75c.

The Rise and Development of Organic Chemistry. CARL SCHORLEMMER. Revised edition, edited by ARTHUR SMITHELLS. London and New York, Macmillan & Co. 1894. Pp. ix+280.

Woman's Share in Primitive Culture. O. T. MASON. New York, D. Appleton & Co. 1894. Pp. xiii+295.