

In his address delivered at the centenary of Fechner's birth, Professor Wundt does not attempt to give a full outline of the philosophical and scientific views of this last of the great German philosophers of the nineteenth century. He states at the outset that his object is to speak of the relation between Fechner the philosopher and Fechner the scientist, and he succeeds admirably in showing the fundamental connection between the religious mysticism of Fechner and those rigorously exact investigations which led to the establishment of the science of psycho-physics. He shows with a delicate touch, a keen insight and in masterly form, how originally purely metaphysical ideas resulted in the establishment of principles which lifted this new science for all future times above the danger of any subjective views. Professor Wundt defends Fechner the scientist against Fechner the philosopher and Fechner the poet, and apparently does not believe that the metaphysical speculations of the '*Innere Psychophysik*' will have many adherents in the future; he compares these aptly with Kepler's mystic '*world-harmony*' now forgotten, but valued by its author more than his immortal third law. The lasting service of Fechner, according to Wundt, consists in the fact that he for the first time introduced 'exact methods, exact principles of measurement and experimental observation into the investigation of mental life' and that, in consequence, he was the first to make a scientific psychology possible.

Wundt's pamphlet contains, besides, several interesting '*Addenda*': Personal Reminiscences, an essay on Fechner's relation to the natural philosophy of Oken and Schelling, on his philosophical method, his psychology, his attitude towards spiritism and a list of his principal works. Wundt's essay will serve as an excellent introduction to the world of thought contained in the works of Fechner, which are far too little known in this country, and which even in Germany are only beginning to take the rank which is due to them in the study of the history of philosophy.

If a further guide to the study of Fechner should be desired, we would suggest to take

up after Wundt's essay, R. Seydel's paper on *Religion und Wissenschaft* (Breslau, 1887), W. Bölsche's *Charakterbild (Deutsche Rundschau, Sept., 1897)*, and K. Lasswitz' critical Biography (1896), which last is still unsurpassed and far preferable to the biography compiled by Kuntze, written from the one-sided standpoint of an orthodox theologian.

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#### SCIENTIFIC JOURNALS AND ARTICLES.

*The Plant World* for January contains an illustrated article on 'The Missouri Botanical Garden,' by the Director, William Trelease; 'A Visit to the Royal Palm Hammocks, Florida,' by Charles T. Simpson; 'Plant Agencies in the Formation of the Florida Keys,' by Charles L. Pollard, besides the usual briefer articles. The Supplement, devoted to the families of flowering plants, contains the first portion of the Orders Opuntiales and Myrtifloræ.

*Bird Lore* for January-February opens with 'Recollections of Elliott Coues,' by D. G. Elliot and C. A. Curtis, in which we are told something of his youth and of his first army detail. 'The Western Evening Grosbeak' is described by Wm. Rogers Lord, and in 'Bird Clubs in America' Francis H. Allen tells of the Nuttall Club, the article being accompanied by a capital plate showing the President, Mr. William Brewster, and a number of the members. Frank M. Chapman contributes the second of the papers on 'How to Name the Birds,' which runs through the Corvidæ, and then follows 'The Christmas Bird Census' taken in many parts of the country, while Fred T. Morison contributes 'The Prize Crow Story.' In 'A Midwinter Meditation,' M. O. W. intimates that nature study may be so misdirected as to be decidedly harmful to the birds.

*Popular Astronomy* for March includes a paper entitled 'A Laboratory for General Astronomy,' by Miss Mary E. Byrd, of Smith College, and an illustrated article by Percival Lowell on the north polar rifts and the arctic canals on Mars. Other articles are

by W. F. Denning on 'Real Paths of Brilliant Meteors'; by J. C. Kapteyn, J. K. Rees and W. H. Pickering, 'On the Motion of the Nebulæ in the Vicinity of the Nova Persei.' The Rev. Q. A. Wheat concludes his series of papers upon the 'Eclipse Aid to Chronology,' and Dr. Wilson contributes further observations of the 'Light Curve of the New Star in Perseus.'

THE first number of a botanical monthly, called *The New Phytologist* has appeared in England. Professor A. G. Tansley, of the University College, London, is its editor and the subscription price is 10 shillings a year. This journal will seek to satisfy an apparent need in Great Britain for a botanical journal with educational aims uppermost. Accordingly especial attention will be given to discussions of scientific questions, methods of teaching and research, notices of important books and papers and preliminary notes. Realizing the labor and sacrifice which such an undertaking involves, we wish Professor Tansley every success and trust that he will obtain cordial support from this side of the water.

#### SOCIETIES AND ACADEMIES.

##### THE IOWA ACADEMY OF SCIENCES.

THE sixteenth annual meeting of the Iowa Academy of Sciences was held in Des Moines on December 26 and 27, Professor A. A. Veblen presiding. The meetings were well attended and much interest was taken in the program. Thirty papers were presented, many of the more technical being read by title.

The address of the retiring president, Professor A. A. Veblen, was on 'The Relation of Physics to the other Material Sciences.' Physics was the first of the material sciences to develop the modern methods of research. The other branches are greatly indebted to physics for the aids it furnished them, and they in turn are under obligation to physics for the help it has rendered them. Professor Veblen also described several models; one to show the transmission of a wave by transverse vibration; another to illustrate the longitudinal or sound wave; and a third for compound simple harmonic motions.

'Preliminary Notes on the Flora of Western Iowa, especially from the Physiographical Ecological Standpoint,' was the subject of a paper read by Professor L. H. Pammel. The effects of the soil, climate, altitude, temperature and rainfall on the flora of the region were considered. The flora of the different physiographic regions was given, including the plants of the Missouri floodplain, the bluffs and the upland.

Professor Herbert Osborn presented a paper on the 'Factors of Extinction.' More attention has been devoted to the factors concerned in the production of new types than to the factors of extinction. It is worth while to attempt to formulate those factors which are especially concerned in the elimination of life forms. They were summarized as follows:

(1) That extinction which comes from modification or progressive evolution, a relegation to the past as a result of the transmutation into more advanced forms. (2) Extinction from changes of physical environment which outrun the powers of adaptation. (3) The extinction which results from competition. (4) The extinction from extreme specialization and limitation to special conditions the loss of which means extinction. (5) Extinction as a result of exhaustion.

Professor Maurice Ricker described a 'Large Red Hydra,' found in large numbers in Echo Lake, Flathead County, Montana. The animals are bright coral red in color and the larger ones measure when feeding five eighths of an inch from mouth to proximal end. None of the tentacles was less than two and one-half inches long. So far as known, no other hydra has ever been collected in the State.

The following officers were elected for 1902: *President*, H. E. Summers, of Iowa State College, Ames, Iowa; *First Vice-President*, J. L. Tilton, of Simpson College, Indianola, Iowa; *Second Vice-President*, S. W. Beyer, of Iowa State College, Ames, Iowa; *Secretary*, A. G. Leonard, of the Iowa Geological Survey, Des Moines, Iowa, and *Treasurer*, B. Shimek, of the State University, Iowa City, Iowa.

A. G. LEONARD,  
*Secretary.*