

the subzonal layer is the ectoderm and that the inner mass is the entoderm,' whereas it is well established that the subzonal layer forms the ectoderm of the chorion (possibly also its mesoderm in some forms) only, and that the inner mass forms all of the tissues of the embryo proper as well as the yolk-sac. The mesoderm is described as arising by a process of delamination in birds, reptiles, elasmobranchs and mammals: 'It is safe to say that the mesoderm probably arises by this process, which we call delamination in all vertebrates' (p. 74). It would be difficult to make a more misleading statement concerning the origin of the mesoderm in vertebrates. The necessity for condensation affords no excuse, as the admirably clear, accurate and brief statement on the same subject in McMurrich's new manual demonstrates.

Such sweeping statements as the two following are at least regrettable: 'It is fortunate for our comprehension of embryological processes that we are already able to say that Roux's hypothesis is erroneous,' referring to the mosaic theory of the segmented ovum; we know, as a matter of *fact*, that certain ova (*e. g.*, of *Ctenophores*) are true mosaics; and the general bearing of recent embryological results is that all ova are more or less mosaic, in an unstable fashion. On page 41 we are told that Weismann's hypotheses are 'complicated' and 'useless'; not to mention the stimulus they have given to research, this sounds strange on the eve of a general rehabilitation of such hypotheses in connection with Mendel's laws of inheritance.

The book contains too many bad misprints and similar errors; *e. g.*, page 19: 'In mammals there are always four pairs (of gill pouches) on each side'; page 29, 'latter' for 'former' in the second line of the last paragraph; page 63, first line, Fig. 23 does not show the structure referred to; page 63, another erroneous figure reference in the second sentence of the last paragraph; page 91 'ectoderm' for 'entoderm' middle of page; page 105, 'unguiculate' for 'ungulate,' last sentence of third paragraph; page 113, 'three months' for 'three weeks,' second line from bottom of first para-

graph. These are only a few instances of many.

Finally a protest should be entered against the use of the German word 'Anlage' to denote 'rudiment,' and especially against such a hybrid monstrosity as 'deck-plate' for 'roof-plate,' the first component being German and the second English. FRANK R. LILLIE.

Handbook of Climatology. Part I., *General Climatology.* By Dr. JULIUS HANN, Professor of Cosmical Physics in the University of Vienna. Translated by ROBERT DECOURCY WARD, Assistant Professor of Climatology in Harvard University. New York and London, The Macmillan Co.

English readers interested in the climate of the earth will welcome the translation of the most important portion of the 'Handbuch der Klimatologie' by Dr. Hann, who now by general consent is accepted as the leading authority on this matter in the world. But the new English edition is more than a translation, and it would have been clearer had the title read translated and revised. Professor Ward has taken great pains to bring all the matter down to date. Besides his own large reading on the subject he has consulted such experts as Professor F. W. Very, Professor W. M. Davis and Professor R. W. Wilson, and then referred all criticism and suggested changes or additions to Dr. Hann, who has passed upon them or revised them, and thus given the weight of his authority to the matter, so that the book becomes essentially a revised edition including more American examples than the original. The preface says that, "Most of the examples given, however, necessarily still relate to Europe, because the climatology of that continent has been studied more critically than that of any other region. A few cuts have been made where the discussion concerned matters of special interest to European students only. Most of the paragraph headings are new, and the arrangement of parts, sections and chapters is somewhat different from that in the original. These changes have been made with a view to adapting the book better for use in the class-room. Every change that has been made has the full

approval of Professor Hann, who has been consulted in regard to all of these matters. Every reference, the original of which is accessible in the Harvard College library or in the library of the Harvard College Observatory, has been looked up, verified and made as complete as possible. No apology is needed for the use of the Centigrade and metric system in such a book as this. For convenience, conversion tables, reprinted from the Smithsonian Meteorological Tables, are given in the appendix."

Professor Ward has also taken great pains to have the book rendered into good English, and in this matter he has had the skilled hand of Professor Henry S. Mackintosh to assist him.

He has also taken great pains to add new references; and the book is remarkably rich as a bibliography to modern literature on climatology.

The book is divided into two parts. Part I. deals with the 'Climatic Factors,' namely, temperature, moisture, cloudiness, precipitation, winds, pressure, evaporation, composition of the atmosphere and phenological observations. Part II. deals with solar or mathematical climate, physical climate, the influence of land and water on the distribution of temperature, the influence of continents upon humidity, cloudiness, precipitation and winds, the influence of ocean currents upon climate, the influence of forests on climate, the mean temperature of parallels of latitude and of the hemispheres, mountain climate, and finally geologic and periodic changes of climate.

No less than five chapters are devoted to mountain climate and the influences of mountains on climate.

No one familiar with Dr. Hann's writings need be told that he deals with the subject from a cosmopolitan standpoint which is rare even among the leaders in science, and he shows a surprising familiarity with the literature of every language. The translation seems all that one could wish.

H. H. CLAYTON.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *Journal of Comparative Neurology* for April contains the following articles: 'The Fore-Brain of *Macacus*,' by Wm. Wolfe Lesem, a study of the superficial anatomy of the brain of the macaque monkey, with two plates. 'Brain Weights of Animals, with Special Reference to the Weight of the Brain in the Macaque Monkey,' by Edward Anthony Spitzka, including a tabulation of the brain and body weights of 204 specimens of mammalian brains. 'A Description of Charts showing the Areas of the Cross-sections of the Human Spinal Cord at the Level of each Spinal Nerve,' by Henry H. Donaldson and David J. Davis, an entirely new computation, including a comparison of the young and mature spinal cord and six different sets of curves. 'The Brain of the *Archæoceti*,' by G. Elliot Smith, a description of two casts of the brain cavity of this extinct cetacean, with four figures. There are twenty pages of book reviews, including a full summary of the researches of Professor Elliot Smith on the 'Phylogeny of the Pallium.'

SOCIETIES AND ACADEMIES.

ANTHROPOLOGICAL SOCIETY OF WASHINGTON.

THE work of the society for the winter has maintained the high level of former years, as shown by the importance of the papers presented and the enthusiasm displayed. At the meeting of November 4, 1902, Professor Lester F. Ward discussed 'Race Differentiation and Race Integration,' treating the subject from the social side, and in this connection Professor Holmes showed diagrammatically the beginnings of races and their final amalgamation.

Professor W. H. Holmes followed with a paper entitled 'The Search for Glacial Man,' reviewing the various discoveries and describing the recent find of human remains at Lansing, Kansas. The meeting of November 4 was devoted to sociology, and papers were read by Mr. Charles F. Weller, on 'How Citizenship is Molded in Washington Alleys and Shacks,' and by Dr. George M. Kober, on 'The Abuse of Medical Charities.' These