

Graebner has made of these principles in his chosen field of Melanesia in its relations to the whole rest of the world.

My own opinions in regard to the value of a single evolutionary series, the importance of very old cultural elements that survive in many parts of the world, and the occurrence of transmission over enormous areas coincide to a great extent with those of Mr. Graebner. I also hold the opinion that the discovery of a really new idea is much more difficult than is generally admitted, and therefore a manifold spontaneous origin quite unlikely. Nevertheless, I can not acknowledge that he has given us *any* safe criterion that would enable us to tell that in any given case transmission can be definitely proved against independent origin, and I am just as skeptical as before reading his book in regard to the advisability of accepting Ratzel's "Ferninterpretation." I rather repeat once more the warning that I have given again and again for twenty years: to be rather overcautious in admitting transmission as the cause of analogies in cases of the sporadic occurrence of similar phenomena, than to operate with the concept of lost links of a chain of cultural intercourse.

That through the exaggerated application of a single principle, when several must be admitted as acting, new viewpoints may be discovered—that much I willingly admit, and I enjoy to follow the daring generalizations to which Mr. Graebner is led. I may, however, be pardoned if I can not accept this as the method of ethnology. I see safe progress essentially in the patient unravelling of the mental processes that may be observed among primitive and civilized peoples, and that express the actual conditions under which cultural forms develop. When we begin to know these, we shall also be able to proceed gradually to the more difficult problems of the cultural relations between isolated areas that exhibit peculiar similarities.

FRANZ BOAS

México, D. F.

Phytogeographic Survey of North America.
By JOHN W. HARSHBERGER. Being Vol.

XIII. of Engler and Drude's "Die Vegetation der Erde." Leipzig, Wilhelm Engelmann. 8vo. Pp. 790, with 1 map, 18 plates and 32 text figures. 1911. 52 M.

The series of monographs issued by Professors Engler and Drude under the title of "Die Vegetation der Erde" reaches the thirteenth number in the stately volume before us. Among preceding volumes are Radde's "Pflanzenverbreitung in der Kaukasusländer," Drude's "Hercynische Florenbezirk," Diels's "Pflanzenwelt von West-Australien," Engler's "Pflanzenwelt Afrikas," etc., all of which have been received with favor by botanists the world over and this prejudices us in favor of this one from the hand of Professor Harshberger.

Unlike the preceding this volume is given in English, which indeed was quite proper in view of its American authorship, and the additional fact that it will be much more available to ordinary students and readers. And it may be said here that I know of no book on scientific botany which is more likely to be read by non-botanical readers than this one. As one reads it he is constantly impressed with the importance to a great number of men of just such knowledge as is brought out here. One wishes it were possible to give as clear pictures to the intelligent layman as are here given to the systematic botanist.

The plan of the work may be stated as follows:

After an English explanatory preface by the author, and a short German summary by Dr. Drude, the book is divided into four great parts, the first of which (92 pp.) is historical and bibliographical. This is followed by Part Second (of 77 pp.) which is devoted to geographic, climatic and statistical considerations. Part Third takes up (in 175 pp.) the geological evolution of the North American continent and its flora, while Part Four (of 358 pp.), which is the body of the book, takes up the phytogeographic regions, formations and associations. The whole is followed by a voluminous Index of Plants (of 85 pp.) which includes helpful synonyms.

Part Four, which, as has just been said, is the body of the work, includes seven chapters. An analysis of these will be helpful as giving some idea of the logical treatment of the subject. The first chapter deals with Arctic and Sub-arctic zones: the second takes up the Atlantic section of the North Temperate zone, with three subdivisions, viz., the Saint Lawrence-Great Lakes Region; the Atlantic-Gulf Coastal Region, and the Piedmont-Appalachian-Ozark Plateau-Mountain Region. Chapter III. is devoted to the Xerophytic Section of the Interior in the North Temperate Zone, with its three subdivisions—the Prairie Region, Rocky Mountain Region and Great Basin Region. The fourth chapter relates to the Pacific Section of the North Temperate Zone, including the Sitka Region, Columbian Region and Californian Region. The fifth chapter takes up the Mexican Subtropical Zone and Mountain Regions. The sixth and seventh chapters are devoted to the North American Tropic Zone, the former to the Mexican and Central American Sections and the latter to the West Indian Section.

The author's purpose which he kept before him as he wrote this book is well expressed in a paragraph of his preface. "But with the settlement of the continent and the exploitation of its resources, such as the drainage of its swamps, the removal of the original forests, and the construction of irrigation works in arid districts, the original condition of the land surface and its vegetation will be changed forever. It is important, therefore, for this generation of botanists and scientists to leave in printed form, in photographs, in maps and in other illustrations a record of the original appearance of the country before the march of civilization has destroyed primitive conditions. This from the standpoint of the botanist is an important matter, because all future botanic and forestry work must be based on considerations of what was the character of the native growth."

With this object in view the author set himself about the task of writing a book which should give the reader a clear picture of the essential features of the original vegetation

of North America. It would be quite impossible to give many details in a work covering so large and varied a field, and this the author has not attempted. So when the reader finds his own particular region treated, as he thinks, somewhat too scantily he must remember that this is necessarily the case, and that if the successive pictures contained too much of detail they would lose much in distinctness and sharpness of outline. As one runs over the paragraphs they appear like pen pictures, whose bold outlines leave a series of vivid impressions on the reader's mind, and this is what the author hoped to accomplish. The author has tried to make such a record as would enable future botanists to know what was the character of the original vegetation of North America.

That the book contains errors of fact, and errors of interpretation probably no one will be more ready to acknowledge than its author, for it could scarcely be otherwise with so large a field as the whole of North America, and a department of botany so new as that of ecological phytogeography. The unpleasant task of pointing out the individual errors I willingly leave for others to accomplish. There is so much in the book that is above criticism that one may well settle down to the enjoyment of its reading, as one enjoys a great landscape painting, with the certainty that the general effect is well worth getting, even though some of the hills are too high and too sharp in the painting, and the names and distribution of some of the plants are given erroneously in the book. The great outlines are true, nevertheless.

It remains for me to speak of the fine plates, which are reproductions from well-selected photographs, and the text figures, many of which are similar but smaller "half tones" of photographs. The map of North America showing phytogeographic areas will prove to be most helpful. Nor must reference be omitted to the interesting history of floristic work in the different geographic areas of North America, where the student will find the names of most of the botanists who have had to do with the exploration of the country.

The bibliography, while necessarily only partial, will be very helpful to the student of North American phytogeography.

CHARLES E. BESSEY

THE UNIVERSITY OF NEBRASKA

TICK (IXODOIDEA) GENERIC NAMES TO BE INCLUDED IN THE "OFFICIAL LIST OF ZOOLOGICAL NAMES"

1. The international committee invited by the secretary of the International Commission on Zoological Nomenclature to make a detailed study of the nomenclature of ticks (Ixodoidea) and consisting of the following specialists in this group, W. Dönitz (Berlin), Albert Hassall (Washington), L. G. Neumann (Toulouse), G. H. F. Nuttall (Cambridge) and Cecil Warburton (London), has submitted its first report.

2. Said committee unanimously agrees that the following eight generic names are the correct names for the genera in question, and that the correct genotypes, according to the International Rules of Zoological Nomenclature, are the species cited:

Amblyomma Koch, 1844a, 223-231, type *cajenense* Fabricius, 1787.

Argas Latreille, 1796a, 178, type *reflexus* Fabricius, 1794.

Dermacentor Koch, 1844a, 235-237, type *reticulatus* Fabricius, 1794.

Hæmaphysalis Koch, 1844a, 237, type *concinna* Koch.

Hyalomma Koch, 1844a, 220-223, type *ægyptium* Linnæus.

Ixodes Latreille, 1796a, 179, type *ricinus* Linnæus.

Rhipicentor Nuttall & Warburton, 1908, 398, type *bicornis* Nuttall & Warburton.

Rhipicephalus Koch, 1844a, 238, 239, type *sanguineus* Latreille.

3. Notice is hereby given that the undersigned will wait until July 1, 1912, for any zoologist to raise any objection to any part of the report of the special committee. If no valid point is raised by the date mentioned, the undersigned will transmit the list to the International Commission with the motion that these names be incorporated in the "Official List of Zoological Names," provided for by the last International Zoological Congress.

All correspondence on this subject should be directed to

C. W. STILES,

*Secretary International Commission
on Zoological Nomenclature*

HYGIENIC LABORATORY,

WASHINGTON, D. C.,

October 30, 1911

THE NATIONAL ACADEMY OF SCIENCES

At the meeting of the National Academy of Sciences held in the Public Library, New York City, on November 21 and 22, the program of scientific papers was as follows:

Flexner, Simon: Mode of Infection in Infantile Paralysis.

Loeb, Jacques: Oxidations in the Cell.

Carrel, Alexis (Introduced by Simon Flexner): Manifest and Non-manifest Life of the Tissues.

Conklin, E. G.: Cell-size and Nuclear-size.

Harrison, R. G. (Introduced by E. B. Wilson): Protoplasmic Movement in Embryonic Cells.

Kükenthal, Willy (Introduced by E. L. Mark): The Biological Significance of the so-called Hairs of the Hairy Frog, *Astylosternus robustus* (Blgr.).

Morgan, T. H.: Sex-limited Inheritance.

Davenport, C. B. (Introduced by T. H. Morgan): Recent Advances in the Study of Eugenics.

Osborn, Henry F.: The Problem of Continuity or Discontinuity in the Origin of Unit Characters in Heredity.

Hrdlička, Aleš (Introduced by W. H. Holmes): Ancient Man in South America in the Light of Recent Researches.

Trelease, Wm.: The Leafy Mistletoes of North America.

Grabau, A. W. (Introduced by J. F. Kemp): A Comparison of the Basal Paleozoic in Northwestern Europe and Eastern North America.

Kemp, J. F.: New Data on the Bed-rock Channel of the Hudson River.

Kemp, J. F.: The Source of the Saratoga Mineral Springs.

Smith, Alexander (Introduced by Charles F. Chandler): Recent Experiments on the Effect of the Absence of Moisture upon the Chemical Dissociation of Calomel and other Salts.

Boltwood, B. B.: Proposed International Radium Standard.

Pupin, M. I.: Conductors Rotating in Alternating Magnetic Field.

Osborne, T. B., and Mendel, Lafayette B. (Introduced by T. B. Osborne): The Role of Different Proteins in Nutrition and Growth.

Peirce, C. S.: A Method of Computation.

Peirce, C. S.: The Reasons of Reasoning, or Grounds of Inferring.

Walcott, Charles D.: Biographical Memoir of Samuel Pierpont Langley.

Becker, George F.: The Remains of Certain Mechanical Quadratures.

Wells, H. L.: A Color-effect in Isomorphous Crystallization.