

the first installment of this series being a ponderous quarto volume of Indian *texts* (myths, animal stories, legends and correspondence) with notes and translation, proves that Dorsey was inspired by the same thoughts.

The Chinook family of dialects is too little known even at the present time, but Boas has made an excellent beginning by filling one of J. W. Powells' *Bulletins of the Bureau of Ethnology*, octavo size, with 'Chinook Texts' gathered by himself. These were all obtained from a gifted man of the tribe, Charles Cultee, who is a true storehouse of aboriginal folk-lore and speaks also the Kathlamet dialect of this same stock. From him Boas obtained eighteen national myths and animal stories, followed by a series of 'beliefs, customs and tales,' with some historical reports. These texts were written down during the seasons 1890 and 1891 at Bay Center, Pacific county, Washington, not very far from the Old Chinook home at the mouth of Columbia River. By a sentiment of grateful remembrance the explorer had the portrait of Cultee placed at the head of the volume which contains 278 pages, and was issued late in 1894 from the Government Printing Office in Washington.

Dr. Boas' scientific alphabet had to be very special and flexible to express the sounds of Chinook, a tongue which people will hardly venture to call sonorous or euphonious, for it abounds in consonantal combinations, and more so at the end of the words than elsewhere. The word-accent is never placed upon the ultima, but always on the penult or ante-penult, and this is the law of the language which made consonantal clusters possible in the *final* syllables. The Shawnee, of the Algonkinian stock, has an opposite law; it has the tendency to emphasize words at the end or ultima, and hence we find vowel elisions and consonantal accumulations in the beginning of the words.

As for the contents of the Chinook stories in which fish, ravens and gulls, cranes, robins and panthers are anthromorphized extensively and much of the fictive matter is presented in colloquial form, we may state that some are outrageously queer and weird; others reveal a poetic vein beneath many things that seem odd and nonsensical, puerile and childish to us.

What refers to the religion of these natives appears very strange, and many will be prompted to exclaim: "Why! for religion, this is decidedly ungodly!" Indeed, we cannot expect that our religious sentiments, which are half Aryan and half Semitic, could ever agree with those of the red man's tenets, beliefs and inspirations. But our religion is all abstraction and theirs is all nature, life and animism. The religious aspects of the primitive man tolerates nothing that is not based on forms and facts of concrete life. The present reviewer is firmly convinced that any white man's opinion concerning the tendencies pervading Chinook folklore and similar products of aboriginal peoples is premature and hence erroneous, unless all the bearings and characteristics of this literature have been assiduously studied. Many of us think it is easy to judge the genuine mental products of the American native from our points of view; on the contrary, it is extremely difficult, and the more we study these products, the more the difficulties increase. A. S. G.

The Life and Traditions of the Red Man. JOSEPH NICOLAR. Bangor, Me., 1893. Pp. 147.

Joseph Nicolar is an Indian of the Penobscot tribe settled on islands in the Penobscot River, Maine, and counting about 400 people. These Indians are quite industrious and inventive; they construct birch bark canoes and manufacture basketry of very neat patterns, which they sell either at the neighboring town of Old Town, or at the watering places of the seaside of the New England coast. The Penobscot Indians adhere to the Roman Catholic faith, which was planted among them in the beginning of the eighteenth century. Mr. Nicolar has made it a life-task to study, publish and propagate the folklore of his own people and in 1893 published to this effect '*The Life and Traditions of the Red Man.*' It is an interesting collection of 147 pages, which for graphic qualities and fluency of style rivals any similar production of the white man. It describes the ancient customs and beliefs, not of the Indian in general, as the title would make us believe, but only of the Abnákis or New England Indians of Algonkin race and language, who are subdivided into Penobscots, Passamaquoddies, Micmacs and St. Francis Indians.

The main figure in these stories is *Gluskap*, their chief deity and lawgiver, who unites with his divine power and oratory the qualities of a clown, liar and deceiver. Several aboriginal religions have their main deities clothed in this same ragamuffin or Falstaff garb, and instances of these are Manabozho or Ninebush—the great Rabbit—of the Ojibwē, Sinti among the Kio-was and Kmukámteh among the Klamaths of Oregon. There is no doubt but that they are deifications of the sun and sky, of the winds and storms, and of the seasons of the year. The name of Gluskap is the usual Abnáki term for *liar* and *deceiver*, but it is rather difficult to discover his real appellation when Nicolai writes him 'Klos-kur-beh.' The book shows a remarkable effort on the part of an Indian to explain to the white man his peculiar manners and ways in life and religion, and the face of the author, of whom a good portrait is added as frontispiece, shows the earnestness of his purposes. The preface is dated Old Town, Maine, but the book was printed at Bangor.

A. S. G.

Vergleichende Pflanzenmorphologie. Von DR. E.

DENNERT. Mit über 600 Einzelbildern in 506 Figuren. 254 Seiten. Verlagsbuch handlung von J. J. WEBER, Leipzig, 1894.

In giving a new science text-book to the world, an author ought to have something valuable to present, in order to fix the attention of the scientific public. Dr. Dennert has attempted to do this, and has succeeded in putting in a clear and forcible way the principles of vegetal morphology. Dr. Dennert in his comparative outline does not claim to have made any new departure, but he wishes to give the laity the fundamental tenets of morphological botany. He hopes that the book may prove a useful repertory to students who desire a compendium on the comparative macroscopic structure of plants.

The book puts in a concise and comprehensive form the essentials of vegetable morphology. Most of the figures are good and new, and give the tyro a fair pictorial representation of a variety of interesting plant structures. The arrangement is, as it should be, scientifically logical. Starting with the cell as the unit of

plant life, he unfolds in a short chapter the principal points of vegetable histology. The sections on root, stem and leaf commend themselves for clearness and lucidity. Nothing more could be desired for beginners than the sketch of the leaf presented in Section III. of the book. After a brief summary of the development of leaf forms, he follows with a clear exposition of leaf morphology by treating the subject under the following categories.* Cotyledonary leaves (keim-blätter), scale leaves, especially on rhizomes (nieder-blätter), foliage leaves (laub-blätter) with stipules (neben-blätter), bractse (hoch-blätter, deck-blätter) and floral leaves (blüten-blätter). By leaf arrangement, as distinguished from phyllotaxy or leaf situation, Dr. Dennert would mean the various adaptive positions of the leaf with respect to light, moisture, heat, as also leaf mosaics. The interesting features of metamorphosed leaves, leaf traps, leaf pitchers, leaf thorns and fleshy leaves receive due consideration, as also heterophylly as represented in *Ranunculus aquatilis* and *Platyserium Wallinkii*.

The development, or growth of the leaf from the primordial leaf (primordial blatt) and its parts, the embryological leaf base (blatt grund), and the embryological leaf blade (ober-blatt), presented in closing the discussion of leaves, helps to clear up any difficulty which the student may have as to the morphological conception of a leaf, especially as to the nature of stipules.

Dr. Dennert has attempted to give in one hundred pages (134-234) the morphology and 'biology' of the flower and fruit, and has, therefore, only succeeded in giving a mere outline of this topic of absorbing interest. One might wish that the author had enlarged upon the adaptive arrangements of flowers in relation to insect visitation, but Dr. Dennert doubtless left this subject, wisely, for exposition by the individual teacher.

The book, however, as a whole, is to be commended to those who desire to obtain in a short time a general knowledge of plant morphology.

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* The German terms are given, because there seems to be considerable confusion among students, as to the exact English equivalents.