

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 Abnaki 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.