

Botanical Garden) a rich mass of materials, he set himself to the task of making a complete monograph of the tribe, accompanying it with such a collection of plates as would throw as much light as possible upon the limits of genera and species understood by him. After nearly two years of delay the volume has appeared, and it is all that the friends of the author anticipated, and more too. It is a beautifully printed quarto volume of 223 pages and one hundred and twelve finely executed plates.

In discussing the relationship of the tribe Dr. Rydberg regards it as representing the lowest or primitive type of the family Rosaceae, and from it arose, as separate, divergent groups, the tribes Dryadeae, Rubeae and Sanguisorbeae, while from the latter arose the Roseae (with possible relationship to the Dryadeae). On the other hand, from Dryadeae arose the Cercocarpeae and Spireae, and from the latter are derived by divergent development the families Pomeae, Drupaceae and Saxifragaceae. In regard to other relationships the author says: "It is evident that the Ranunculaceae and Rosaceae are very nearly related," and in his diagram showing the foregoing relationships places the Ranunculaceae immediately below the Potentilleae.

Thirteen genera are recognized in the Potentilleae, of which the largest is *Potentilla* with 107 species. The next in point of numbers is *Horkelia* with 47 species, followed by *Fragaria* with 20, and *Drymocallis* with 13. Quite naturally, the author found it necessary to describe many new species, and occasionally to give a new name to an old species, because of the preoccupation of the old name. He has been rather conservative in this part of his work, for which he deserves our thanks. In *Fragaria* the new species are as follows: *F. crinita*, *F. sibbaldifolia*, *F. truncata*, *F. platypetala*, *F. prolifica*, *F. pumila*, *F. terrae novae*, *F. pauciflora* and *F. firma*. In the much larger genus, *Potentilla*, there are but nine new species, but this is due to the fact that Dr. Rydberg, in his work upon this genus, published many new species a couple of years ago in the *Bulletin of the Torrey Botanical Club*.

A most interesting table closes the text, giving data as to the distribution of the Potentilleae in North America. From this we learn that in California there are 64 species, in the Rocky

Mountains 61, in Oregon and Washington 53, Saskatchewan Region 29, Canadian Rocky Mountains 28, Texas and Arizona 27, the Great Plains 26, New England and Middle States 26, Great Basin 23, British Columbia 22, southern Mexico 19, Labrador and Baffin's Bay 17, the Prairie Region 17, Canada 16, Alaska 16, Greenland 15, Arctic Coast 12, Southern States 8, northern Mexico 8, Lower California 7, Central America 2.

This monograph must at once become authoritative for this group of plants, and to every working botanist dealing with the higher seed-bearing plants it will be indispensable.

CHARLES E. BESSEY.

THE UNIVERSITY OF NEBRASKA.

#### SCIENTIFIC JOURNALS AND ARTICLES.

*Terrestrial Magnetism and Atmospheric Electricity* for March.—The promised series of portraits of eminent magneticians and electricians is begun in the present number with that of Professor Arthur W. Rücker, the President of the Permanent Committee on Terrestrial Magnetism and Atmospheric Electricity of the International Meteorological Conference. The journal has been enlarged to 72 pages, the present number being also freely illustrated and containing several important contributions by eminent investigators, as will appear from the table of contents:

Aimantation Induite par le Champ Terrestre sur les Aimants, E. Mascart.

Is there a 423-Day Period in Terrestrial Magnetism? J. F. Hayford.

Beobachtungen über die Eigenelectricität der Atmosphärischen Niederschläge, J. Elster and H. Geitel.

The Physical Decomposition of the Earth's Permanent Magnetic Field—No. 1. The Assumed Normal Magnetization and the Characteristics of the Resulting Residual Field, L. A. Bauer.

Is the Principal Source of the Secular Variation of the Earth's Magnetism within or without the Earth's Crust? L. A. Bauer.

Tafeln zur Genäherten Auswertung von Kugelfunctionen und ihren Differentialquotienten, Ad. Schmidt (Gotha).

Erdmagnetische Beobachtungen im Umanaks-Fiord (Nordwest-Grönland), 1892-93, H. Stade.

Abstracts and Reviews.

Notes: Biographical Sketch of Professor Rücker. Activity in Magnetic Work.