

essentials of a good ostrich feather and the defects—for example, 'barring'—are noted, and statistics are added of the number and value of the feathers produced.

In the section on feathers for beds—obtained chiefly from ducks, geese, and hens, in many cases as a by-product—and on down, many details are given of their physical properties and of their preparation for their principal uses. The various uses of feather-quills and the employment of feathers and bird-skins for ornament by native peoples are described. This section concludes with a very useful summary of the species of birds the skins and feathers of which are of commercial value, with a note of their geographical distribution.

Bibliographies are appended to the principal sections, and interesting illustrations, chiefly from photographs, are placed in the text. This work presents, in concise and well-arranged form, up-to-date information, both scientific and commercial, on the skins of mammals and birds, and can be recommended as an authoritative source of reference.

### Short Reviews

*Die natürlichen Pflanzenfamilien: nebst ihren Gattungen und wichtigeren Arten, insbesondere den Nutzpflanzen.* Begründet von A. Engler und K. Prantl. Zweite stark vermehrte und verbesserte Auflage, herausgegeben von A. Engler. Fortgesetzt von H. Harms. Band 19a: *Angiospermæ, Reihe Pandales.—Reihe Geraniales, Unterreihe Geraniaceæ (erster Teil)*. Redigiert von F. Pax. Pp. iv + 470. 60 gold marks. Band 19c: *Angiospermæ, Reihe Geraniales, Unterreihen Dichapetalineæ, Tricocceæ, Callitrichineæ*. Redigiert von F. Pax. Pp. iv + 251. 32 gold marks. (Leipzig: Wilhelm Engelmann, 1931.)

THE publication of the new edition of "Die natürlichen Pflanzenfamilien", which has been supervised, since the death of Engler, by Dr. H. Harms of Berlin, is progressing steadily, two volumes, namely, 19a and 19c, having appeared during 1931. Vol. 19a begins with the monotypic order Pandales, based on *Panda oleosa* Pierre, a West African forest tree of uncertain affinity. This is followed by ten families of Geraniales, from Oxalidaceæ to Burseraceæ respectively. More than a third of the volume is occupied by the account of the Rutaceæ, which, together with those of Zygophyllaceæ, Cneoraceæ, Simarubaceæ, and Burseraceæ, was prepared by the late Prof. Engler. The great extent of recent research on the Rutaceæ is reflected in the number of genera now recognised in that family, 145 as compared with 111 in the first edition. This is due partly to extensive generic segregation in the subfamily Aurantioideæ by Swingle and others. Both text and figures are much blacker than in the first edition, the figures in some cases—for example,

*Casimiroa edulis* (p. 305)—being far too heavily shaded. Most of them, however, are very clear.

Vol. 19c is mainly taken up by the account of the Euphorbiaceæ, by Pax and K. Hoffmann. This great family now includes 283 genera, as compared with 209 in 1890, and the introductory matter has been thoroughly revised, now extending to 31 pages instead of 13. The necessity for a second edition is therefore obvious. In this volume also many of the illustrations—for example, *Mallotus philippinensis*—are, unfortunately, far too black.

Under the general direction of Dr. Harms, the high standard of the first edition is, on the whole, maintained.

*Hume's Philosophy of Human Nature.* By Prof. John Laird. Pp. x + 312. (London: Methuen and Co., Ltd., 1932.) 12s. 6d. net.

HUME becomes more and more popular among philosophers. The reason is that we find ourselves in a period very similar to his. Indeed, it is felt that the dogmatic interpretations which have been given of the momentous discoveries of our time are not quite satisfactory in themselves. Before proceeding to the formulation of new theories, it appears necessary to clear the ground, which implies primarily the action of a sceptic mind. It is quite natural, then, that philosophers should turn for inspiration and encouragement to David Hume, the father of modern scepticism.

Though Hume was versed neither in mathematics nor in natural science, the critical examination he made of their theoretical presuppositions is a permanent addition to our philosophical knowledge. His great contribution to the discussion is his distinction between 'knowledge' and 'probability', which is at the basis of inductive inference.

Prof. Laird explains and examines Hume's principles of causal inference in Chap. iv., perhaps the most important of his book. There we find a remarkable discussion of questions such as the uniformity of Nature, belief, testimony, conjectural probability, analogy, and experimental method, where Hume anticipates many considerations which we find later in Stuart Mill's "System of Logic". One of Hume's most peculiar principles is that which denies plurality of causes and plurality of effects, though it may be doubted whether he was entitled to hold it without any decisive arguments. In his chapter about "Space, Time, and External Existence", Prof. Laird discusses also many interesting doctrines of Hume's bearing on the foundations of mathematics. His long acquaintance with Hume's system has made Prof. Laird one of the safest guides to the complexities of his philosophy; and the book he has produced is a permanent addition to the philosophical literature of the day.

*Volumetric Analysis.* By G. Fowles. Pp. xii + 202. (London: G. Bell and Sons, Ltd., 1932.) 6s.

THIS book will be welcomed by teachers of chemistry who are desirous of placing in the hands of their students a lucid exposition of up-to-date methods of volumetric analysis. Although intended for uni-