Supplements are planned to be issued yearly, on two types of sheets, one for new compounds and one for additions.

The system of arrangement is that of "Richter's Lexicon der Kohlenstaff Verbindungen" in so far as it applies to compounds of carbon and hydrogen only. The elements are given in the order: C, H, D, T. The last two symbols represent the deuterium and tritium isotopes of hydrogen.

The compounds are arranged first into classes according to the number of carbon atoms in the molecule, and second into groups within each class according to the number of hydrogen atoms. Deuterium and tritium compounds are placed immediately before the corresponding all $H^1$ compound in order of the number of deuterium or tritium atoms, the largest coming first, e.g. $CD_4$, $CHD_3$, $CH_2D_2$, $CH_3D$, $CH_4$.

Compounds of the same molecular formula are arranged further according to the degree of unsaturation, with saturated compounds first. A double bond is one degree of unsaturation; a triple bond, two degrees. These compounds are then arranged according to the occurrence of double and triple bonds. Two double bonds precede a triple bond. The aromatic nucleus is regarded as saturated. Still further arrangements include those according to the longest straight chain or largest cyclic system of carbon atoms, the greatest coming first, and those according to the length of the largest substituent group, the smallest coming first, e.g. two methyl substituents precede an ethyl substituent.

The system of nomenclature follows very closely the "International rules for naming organic compounds" (*J. Amer. chem. Soc.*, 1933, 55, 3905).

A total of 554 references are given to the preparation of methane, 66 for n-pentane, 70 for isopentane, and 13 for neopentane. Similar relatively large numbers of references are given for the preparation of the other compounds.

The summaries of physical properties are only of very general value because of their incompleteness and noncritical selection of data.

The encyclopedia will be useful mainly to organic chemists interested in the synthesis of these hydrocarbons and to physical and petroleum chemists interested in reactions involving these compounds.

This book is recommended to those interested in finding recorded in one place references to substantially all the published methods of preparation of these hydrocarbons.

FREDERICK D. ROSSINI
*National Bureau of Standards, Washington, D. C.*

***Genera et species plantarum argentinarum.*** **(Vol. 1.) (Ed. by National University of Tucumán.) Buenos Aires: Fundacion Miguel Lillo, 1943. Pp. xxi + 331. (Illustrated.) 160 pesos.**

During recent years there has been an ever-increasing output of botanical studies from the city of Tucumán, situated near the base of the Andes in northwestern Argentina. This has been quickened by the foundation, a decade ago, of the Botanical Institute that bears the name of Tucumán's distinguished botanist, Miguel Lillo (1862–1931). The journal *Lilloa*, initiated in 1937, has shown a rapid development in the number and quality of its botanical papers and a corresponding excellence in the technique of its printing and illustrations. Now we welcome from the Instituto Botanico one of the most sumptuous volumes, as to format, printing, and illustrations, that has ever been produced in the New World; in these matters it compares with the royally supported expedition reports of a century ago rather than with the usual scientific papers of our time.

The work, bound in heavy, light green cloth, is a folio of 331 pages, its firm sheets measuring $34 \times 50$ cm. Its first pages give dedications to various persons, some of whom are public officers and others those in authority at the University and the Institute in Tucumán. The last page tells in some detail of the mechanical production of this volume, recording those in charge of each stage of the processes of printing and engraving and stating the size of the edition which has been both directly printed on special paper and reproduced by an offset method.

The actual text of the book, which employs both Spanish and Latin, contains accounts of three families of flowering plants. To these are added "Icones Plantarum Argentinarum," a series of 11 beautiful paintings of miscellaneous flowering plants, unaccompanied by descriptive text. The three families considered are illustrated by similar plates, except that only a small proportion of them are colored. Of these families the Zygophyllaceae, with text prepared by H. R. Descole, C. A. O'Donell, and A. Lourteig, contain 7 genera and 16 species, each specially treated and mapped; the Cactaceae, by A. Castellanos and H. Lelong, comprise 26 genera duly distinguished on an analytical key, but there is no consideration of individual species; while the Euphorbiaceae, by A. Lourteig and C. A. O'Donell, are elaborated with a key to the 25 genera as well as keys to the species of all except those of the large genera, *Croton, Julocroton,* and *Euphorbia.* Ninety-five such species are considered.

The current numbers of *Lilloa* carry papers of a more technical nature that supplement the accounts of special families under consideration. The above authors have thus treated the Zygophyllaceae (*Lilloa*, 1940, 5, 257–352) and the Euphorbiaceae (*Lilloa*, 1943, 9, 77–177), with special discussions, ample citation of specimens studied, etc. Perhaps a similar additional account of Cactaceae is forthcoming, or perhaps this family is to rest for the present on the classic work of Britton and Rose.

It is the merit of the plates, and especially the beauty of those in color, that will constitute the permanent value of this work. If the project should be carried to fulfillment, this is merely the first of many such volumes. The whole will constitute a magnificent presentation of the Argentine flora.

FRANCIS W. PENNELL
*Academy of Natural Sciences, Philadelphia*