

scientist, taking him away from scientific inquiry and orienting him towards metaphysics. It was at this period in 1838, in the course of an attack of conscience, that he renounced rationalism and the scientific method in an attempt to know his Creator and thereby truth.

Florkin forecasts that Schwann's personality will certainly stimulate various works, not only by historians of science but also by psychologists given to the 'characterology' of the scientific investigator and to that of the meanderings of the spirit of man.

Besides renewing biology by his discoveries and scientific theories, Schwann's philosophic and religious pre-occupations, and the transfiguration of science into religious emotion which he sought in his theories, the intensity of his inner life and his long resistance to orthodoxy outline a life at once sad and serene, untiringly devoted to the most exalted and moving aspirations of the human soul. As Edmond Scherer said of another great and lonely figure, Frédéric Amiel, Schwann was 'de ceux qu'a touché de son aile l'ange des visions ineffables et des divines tristesses'.

KENNETH J. FRANKLIN

WEALTH OF THE FOREST

Les Plantes Utiles du Gabon

Essai d'Inventaire et de Concordance des noms Vernaculaires et Scientifiques des Plantes Spontanées et Introduites. Description des Espèces, Propriétés, Utilisations Économiques, Ethnographiques et Artistiques. Par André Raponda-Walker et Roger Sillans. (Encyclopédie Biologique, Tome 56.) Pp. x + 614 + 53 planches. (Paris: Éditions Paul Lechevalier, 1961.) 250 NF.

TO us who depend increasingly on 'supermarket' and slot-machine, one of the most interesting aspects of life in less sophisticated lands is the wide use made of local plants to supply daily needs. Nearly every plant seems to have its use; this one as a cure for fever, the next providing fibre for fish-nets, a third giving wood for musical instruments. Of interest, therefore, is a new book describing useful plants of that western part of equatorial Africa known as Gabon. Dr. Albert Schweitzer's reference to this coast as the edge of the primeval forest comes to mind, and, although the vegetation of the coastal and riverine areas is now well known and is much altered by man's activities, the vast area of the interior, mainly forest, remains inadequately recorded.

In a pleasant foreword by Prof. Trochain, the book is described as the joint product of a priest-botanist-ethnologist and a botanist-draughtsman-artist. During thirty years of missionary work in that country, the senior author, the Abbé Raponda-Walker, amassed the information on plants and their local names and uses which forms the bulk of the text. The notes being placed in the hands of R. Sillans, he attempted, as is explained, to bring the material to life, to depict the vegetation of the region as known to the inhabitants and as it enters into their daily life.

The result is a book which is full of information for both botanist and ethnologist. It opens with short introductory chapters on the history of botanical exploration in Gabon, on the climate and types of vegetation, and the vegetable products entering trade. In the main part of the book, the plants which are put to use are described in turn, the genera being arranged alphabetically in their families. For each

species is given a short description, a note of its use in native custom, and a list of vernacular names by which the plant is known among various of the 27 tribes in the country. The artist provides 52 full-page botanical drawings of important species. In addition, the text is enlivened by figures and illustrative sketches. If the writer tells us that wood of *Alstonia* is used for ceremonial masks, the artist employs his pen to show the masks worn by some tribal society in their fetish rituals. The book is well indexed, and nearly 8,000 entries in the index of vernacular names are a measure of the Abbé Raponda-Walker's diligent observation.

Many plants described here are common also to forest country of West Africa to the north-west, and it is possible to compare the uses of them in Gabon with those so well described earlier by Dalziel, or in Irvine's *Woody Plants of Ghana* (see p. 695 of this issue). Others again are peculiar to the region of Gabon, ranging in economic importance from the great okoumé tree, *Aucoumea klaineana*, the timber of which constitutes the greatest wealth of Gabon, to so small and nasty a plant as *Ataenidia* of the arrowroot family, the leaves of which, thrown into the cooking-pot, cause discord in the household or village. Ferns are among the plants of which use is made; and an unusual record is the weaving of the black shining rhizomorphs of a fungus into ornamental cords to wear on the body. An appendix gives the vernacular names of recognized cultivars of some staple crops, including banana, cassava, and sugar-cane.

The useful plants of Gabon, as here presented, include many introduced plants. Some, like banana and maize, have long been adopted by the Gabonese and have become part of their life. Others have not penetrated farther than the trial-ground or mission-garden, and, although mention of this is made, their appearance at all in the main text as useful plants of Gabon may well be questioned. To find included the Judas tree, *Cercis siliquastrum*, a Mediterranean plant ill-suited to the humid tropics, is as unexpected as it may be misleading. But this, and the mis-spelling of some botanical names, are minor blemishes in a work which contains much of value and of charm.

T. A. RUSSELL

FORMAL LOGIC IN RETROSPECT

A History of Formal Logic

By Dr. I. M. Bochénski. Translated and edited by Ivo Thomas. Pp. xxii + 567. (Notre Dame, Indiana: University of Notre Dame Press, 1961.) 20 dollars.

IN this monumental work, Prof. Bochénski presents us with the results of some forty years of research. Scholars are already aware of the merits of the German edition, published in 1956, especially the accuracy of the transcripts from Aristotelian texts. Now we are enabled to have the outcome of this 'labour of love' in English, thanks to the University of Notre Dame Press, and a competent translator. In the event, these pages are very much more than a source-book. They will be consulted by logicians and historians for many a generation maybe, before anything comparable appears again. The decimal system of entries—both extracts and commentaries—of the original is maintained with trifling exceptions, which makes reference easy within the volume itself, and to the German version.