

in error. Such names as *Canadensis*, *Americana*, *Gallica*, *Sinensis*, *Virginica*, *Californica*, etc., etc., used as specific names are adjectives, and adjectives in Latin are written with small letters; the author has written them all with capitals. Among the errors of this kind, he has on page 436, *Fagus Sylvatica* instead of *F. sylvatica*. On the other hand, some of the specific names still capitalized, he fails to capitalize, thus on page 64, *Datura tatula* should be *D. Tatula*, and on page 65, *Verbascum thapsus* should be *V. Thapsus*. Generic names are always capitalized and so on page 328, *graphis elegans* should be *Graphis elegans*. Here, too, it may be well to call attention to page 118; the name of the plant, according to many authors, is not *Xanthoxylum*, but *Zanthoxylum*; and on page 395, the botanic source of the drug is not *Sticta pulmonacea*, but *Lobaria pulmonaria*.

(5) *Non-conformities, sometimes mistakes, and omissions.* On page 63, *Hamamelis Virginica* should be *H. virginiana*. On page 64, why not use "STRAMONIUM," instead of "STRAMONII FOLIA?" And why not conform with the U. S. P. which does not recognize *Datura Tatula* as one of its sources? On page 119, under "LAPPAE FRUCTUS," the fruit of *Lappa officinalis*, should be the fruit of *Arctium Lappa*, which is also the source of LAPPA, as the author recognizes on page 260. On page 226, under "GLYCYRRHIZA," the author states this is the root of *Glycyrrhiza glabra* and *G. glandulifera*; the U. S. P. states it is the rhizome and roots of *G. glabra v. typica* or of *G. glabra v. glandulifera*. On page 243, we note "ANGELICA," why not ANGELICAE RADIX as in the N. F.? The N. F. recognizes rhizome and root of *Angelica Archangelica* and other species of *Angelica*; the author states root of *Archangelica officinalis* and other species of *Archangelica*. On page 303, under CORYDALIS, the author states, the tubers of *Dicentra Canadensis*; the N. F. states, the tubers of *D. canadensis* or *D. Cucullaria*. On page 345, the "Cinchona" described by the author is not CINCHONA, U. S. P. He should, in some place, make note of this; likewise, on page 348, the "Cinnamomum" described is not CINNAMOMUM U. S. P., the latter being described as *Cinnamomum Saigoncum*; here again, there is no statement to guide the student. On page 359, the author states that *Berberis* is the bark of *Berberis vulgaris*; the name "BERBERIS" should be reserved for the N. F. drug, which he in no place describes. On page 389, under "Galla," the insect causing the excrescence is described

as *Cynips Gallae tinctoria*, most authors call it *Cynips tinctoria*. Under FUCUS, page 393, the author fails to mention *Fucus serratus*, and *F. siliquosus*, as also sources of the drug. On page 417, the author uses "Saccharum" as a Latin name for sugar. It should be replaced by SUCROSUM, a name he fails to mention at all. On page 430, Shellac is not a substance exuded from various plants in consequence of the stings from the female insects of *Coccus Lacca*. On page 432, he states that COPAIBA is obtained from "Copaifera Langs—dorfii," and other South American species of *Copaifera Copaiba*, instead of species of *Copaiba* as advocated by the U. S. P. *Copaiba* is also the English name advocated by the U. S. P., hence "Para Copaiiba" and "Maracaibo Copaiiba," and not "Copaiva." On page 436, *Betula alba* does not belong to the *Cupuliferae*, but to the *Betulaceae*, neither does *Fagus sylvatica* belong to it, but to the *Fagaceae*. On page 453, LACTOSUM is not mentioned, but the drug is described under its former title "Saccharum Lactis." At no place do I find a description of *Cocillana*, *Dextrosium*, *Tyroideum*, *Pituitarium*, *Vaccinum Variolae*, *Antitoxinum Diphthericum*, or of *Antitoxinum Tetanicum*.

(6) There are also botanical inaccuracies; thus on page 128, Pepper is described under Fleshy Fruits or Berries, since it is a drupe, it should have been described under Drupes; likewise on page 139, under White Pepper, Pepper is described as a berry. On page 135, Pimenta is described as a drupe, and on page 137, Solanum is described as a drupe, both are berries. On page 197, the author speaks of a nucleus sheath, why not use endodermis? And on page 213, no attempt is made to explain anomalous structure, and he simply calls the rings of growth, "spurious rings."

(7) No attempt has been made to criticize any of the other findings, as Habitat, Description, Constituents, Uses and Dose. These are, with the exception of what he states as constituents of ERGOTA, for the most part, probably correct.—CHARLES C. PLITT.

*International Health Year-Book, 1928.* Fourth Year. Reports on the Public Health Progress of 29 Countries (35 Public Health Administrations) in 1927. (L. of N. 1929. III. 6.) 1175 pages. Cloth. World Peace Foundation, American Agent, Boston, Mass. Price, \$6.00.

The Health Organization of the League of Nations has just published its International

Health Year-Book for 1928. This is the fourth volume of this publication, and it contains information concerning twenty-nine countries: Australia, Austria, Belgium, Canada, Czechoslovakia, Denmark, Dominican Republic, Egypt, Estonia, Finland, France, Germany, Hungary, Irish Free State, Italy, Japan, Latvia, the Netherlands, Norway, New Zealand, Panama, Poland, Roumania, Spain, Spanish possessions in the Gulf of Guinea, Sweden, Turkey, Union of Socialist Soviet Republics, United Kingdom (England, Wales, Scotland, Northern Ireland, Keny, British Somaliland, Tanganyika).

The object of the Year-Book is to give a survey of the progress made by the various countries in the domain of public health. It indicates new developments in the working of the various health services, gives the most recent data as regards vital and health statistics and reviews the work of the principal international organizations dealing with public health, such as the League of Red Cross Societies, the Rockefeller Foundation and the League Health Organization.

The information contained in the Year-Book is furnished by the heads of national health services or persons deputed by them for this purpose. (In our opinion the statement given relative to the number of drug stores in the United States at about 80,000 is excessive; about 60,000 is, probably, nearer the number of stores.)

The twenty-eight standard tables are designed to present the minimum of vital statistics necessary to allow the reader to "interpret correctly the information relating to health conditions in the country under consideration, and to compare the health conditions of the various countries."

The twenty-eight tables fall into the seven following groups: General Demography, Birth Rates, General Death Rate, Causes of Deaths, Infant Mortality, Public Health Statistics, Data on Curative Medicine.

The book will be found a valuable addition to libraries because of the data reported.

*Botany.* By WILLIAM J. ROLLINS AND HAROLD W. RICKETT. D. Van Nostrand Co., New York, 1929. 535 pages, 382 illustrations, 101 book references. Price \$3.75.

In 27 chapters we find an interesting discussion of cells and tissues, their contents, growth and function, of origin and meaning of life, relations, energy of representative groups of

lower and higher plant life, their vegetative and sexual life cycle, inheritance, evolution and distribution.

"In spite of the many excellent textbooks available on botany and allied subjects," as the authors admit, they have prepared the elaborated course of lectures, given at the University of Missouri, in an attempt "to present the fundamental biological principles rather than to lay the foundation for professional botany, and to give a correct idea of the true nature of the aim of science, its methods of work, and the value and limitations of its results."

To illustrate the author's treatment we quote from the chapters of reactions of plants. "Teleology is a very human point of view and we do many things with purpose; and we assume that the things which a plant or animal does are also caused by purposes. . . . It must be emphasized that science cannot deny the possibility that plants have wills and purposes, and that they govern its life, or that there is some all-knowing Power directing their activities. Teleology may represent, for all we know, the truth; but it is unscientific nevertheless, because it assumes things for which there is as yet no evidence in the sense of observable or demonstratable facts. Therefore we must avoid it in biology—the scientific consideration of life. We must give as reasons for structures and functions only known causes; and we must be prepared, when we cannot find the cause, frankly to admit our ignorance—and to go on looking for one."

Curiously we find no reference to lignin, so characteristic of all woody tissue, of hemicellulose, mucilage and the callose of sieve tubes. We also feel, with regret, that biochemistry and biophysics have not been given more place as they form such an integral part of modern biological science.

Appended is a questionnaire of over 500 questions for review and discussion which will prove helpful to the student who all too frequently is at a loss to formulate his own questions and to determine the extent of his understanding and knowledge.

The book will prove suggestive to the teacher of botany or biology—and be welcomed by students of plant life.—ARNO VIEHOEVER.

#### BOOKS RECEIVED.

Notice of books received is given in this department and such acknowledgment if not otherwise made is to be regarded as a sufficient