description of normal anatomy followed by a discussion of the various pathologic entities, their incidence, possible etiologic factors, the clinical pathology, and clinical correlations. The latter should prove of particular value to veterinarians in practice.

The first section, which deals with the urinary system, includes discussions on the kidney, urolithiasis, renal pelvis and ureter, the urinary bladder, and the urethra. In my opinion this section is particularly excellent.

The second section concerns the male genital system and includes discussions on hermaphrodism and pseudohermaphrodisms, the testis and epididymis, the spermatic cord, vas deferens, scrotum, penis, and prostate. The organization and coverage of this section is adequate and complete.

The third chapter, or section, deals with the female genital system and includes a discussion of the sexual cycle, the vulva, vagina, uterus, pregnancy and the placenta, the Fallopian tubes, ovary and mammary gland. Like the first two sections, this one is very complete.

The faults of the text are really minor and include a poor main title and a very poor index. The subtitle should be incorporated into the title of the text, which coverwise is misleading. There is a wealth of good information in the text which, unfortunately, cannot be found in the index. For example, there is an ample discussion of blood and urine alterations throughout the text, yet neither subject appears in the index.

In my opinion this book is a definite contribution and can be recommended highly to the veterinary profession as well as to those scientists who utilize the dog or cat as an experimental animal.

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Higher Transcendental Functions. vol. III. Based in part on notes left by Harry Bateman. Bateman Project Staff, A. Erdélyi, Ed. McGraw-Hill, New York–London, 1955. xviii + 292 pp. $6.50.

This is the last of the five volumes produced by the Bateman Manuscript Project [see *Science* **120**, 302 (1954); **121**, 464 (1955)]. Sections on Lamé functions, Mathieu functions, spheroidal and ellipsoidal wave functions, and miscellaneous functions (such as Mittag-Leffler's *E*-functions and the "higher trigonometric functions") follow the pattern of the earlier volumes: a survey of important formulas with full references to the specialized literature for proofs and further details.

There are also three chapters of a different character: an introduction to automorphic functions and a chapter on number-theoretical functions, both characterized by the editor as "frankly experimental"; and a chapter on generating functions. The first is a concise elementary survey, intended as background for some explicit examples. In the second, little unity or coherence is possible, but there is probably no single book on number theory in which all the information in this chapter appears. The chapter on generating functions (in the sense of functions whose power series have an interesting set of functions as coefficients) is a collection of results linked by an accidental similarity of form. Examples are given to indicate various ways in which generating functions are used. Unfortunately there is no way of predicting whether a given set of functions will have a useful generating function. However, anyone confronted with the power series of a complicated function containing a parameter will do well to look here to see whether the coefficients have already been investigated.

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World Outside My Door. Olive Bown Goin. Macmillan, New York, 1955. vi + 184 pp. Illus. $3.50.

Mrs. Goin is first and foremost a housewife, the publisher tells us; her household consists of her husband, an associate professor of biology at the University of Florida, two children, and two cats. Mrs. Goin's training as a biologist (mammalogist) and her obvious ability as a naturalist, combined with an artist's enjoyment of color and movement and a warm outlook on life, make her book alive, enjoyable, and, where she permits her biological training to dominate, most accurate.

A half-acre of backyard in a southern city becomes a Fabresque field for observation. *Bipalium* lives with marsh peepers, turtles, rain frogs, cardinals, and rabbits—all in balance with four human beings.

For those who prefer *Elaphe obsoleta quadrivittata* to four-lined chicken snake, there is an appendix listing some 70 species of vertebrates she has observed.

Mrs. Goin apparently believes that the naturalist's field is all life, and this total view blends her backyard into the community that naturalists have fashioned wherever they have tried to describe microorganisms (Leidy) or the animals of the African veldt (Akeley). So a rain frog's habits are projected into its evolutionary past, the spade-foot's activity is related to temperature, and the peck order of birds is noted and pondered.

Naturalists, young and old—and those who should be naturalists—should seek Mrs. Goin's company, if in no other way than through her book.

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Biochemistry of Nitrogen. A collection of papers on biochemistry of nitrogen and related subjects. Dedicated to Artturi Ilmari Virtanen. N. J. Toivonen, E. Tommila, *et al.*, Eds. Annales, Series II, Chemica. Suomalainen Tiedeakatemia, Helsinki, 1955. 535 pp. Illus. + plates. $12.

This Festschrift contains 48 papers from 14 countries on the biochemistry of nitrogen and related subjects. It is dedicated to Nobel laureate Artturi Ilmari Virtanen on the occasion of his 60th birthday. Most of the articles are in English, the others are in German and French.

The scope of the subjects represented reflects the range of interests and versatility of Virtanen. Thus there are articles on nitrogen fixation, reduction of nitrate, the biochemistry of nitrogen-deficient microorganisms, oxidation of amino acids by mitochondria, protein metabolism in cell nuclei, amino acids in protein-rich and protein-poor *Rhodotorula gracilis*, protein and nucleic acid contents of developing *Chlorella*, antibiotics and nitrogen excretion by microorganisms, inhibitory effect of Swedish ropy milk on fungi, symbiosis in bacterial biosynthesis, mutations and adaptations in bacteria, and free amino acids of the pea plant.

There are discussions concerning the effect of irradiation on the formation of hemoglobin, reversible splitting of hemoglobin, the prosthetic groups of cytochrome oxidase and cytochrome *a*, polymers of aminosugars, the significance of macromolecules, combination of phytic acid with protein, studies on the metabolism of citrate, tyrosine and tryptophan, and isotopically labeled fructose, milk proteins in nutrition, electronegativity (Pauling), magnesium diabetes, reductone, chaconin, and γ-aminobutyrate.

There are descriptions of column chromatography of proteins, immunoelectrophoresis, the enzymatic syntheses of adenosine, and chemical syntheses of nucleotide coenzymes, a pyridine nucleoside, peptides, and isotopically labeled kynurenine. Two phases of photosynthesis are described by Calvin and by Warburg, both with associates. Enzymes discussed include pancreatic lipase, hy-