they occur in connection with tests or theoretical points. On the basis of my experience, I seriously doubt the feasibility or even the desirability of such an attempt.

Second, there are some organizational difficulties. As is indicated previously, the discussion of factor analysis is welcome, but it is introduced in such fashion that its principal treatment *follows* the sections that it could best illuminate and organize. Except for the first section, there is a somewhat regrettable lack of development around available theories in favor of a more encyclopedic approach.

These are things, however, that a skillful teacher can take into account, and they should not seriously reduce the book's potential usefulness. They should not be problems at all for the practicing psychologist who wants a sound, critical evaluation of recent developments. The field of tests and measurements seems about to embark on a new era in response to many recent and important developments. In some ways, Anastasi's book represents an excellent summary of progress. In other ways, it heralds the new directions of attack on critical problems of this field.

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Renal Function. Trans. of the Fifth Conference 14–16 October 1953, Princeton, N.J. Stanley E. Bradley, Ed. Josiah Macy, Jr., Foundation, New York, 1954. 218 pp. Illus. $3.75.

Since 1942 Frank Fremont-Smith has organized and directed, under the aegis of the Macy Foundation, a series of interdisciplinary conferences on medical and allied topics in which integration of the activities and accomplishments of workers in different fields seems especially called for. Not only has the interchange around the conference table proved of great value to the participants, but the published transactions have been notable evaluations of the status of the topics discussed, in a fashion that could be achieved only when the presentation of the investigator is subjected to questioning by *cognoscenti* in the field.

This volume records the fifth and last conference on renal function. The subjects included are "The nephrotic syndrome," by John A. Luetscher, Jr.; "The problem of kidney transplantation," by Benjamin F. Miller; and "Acute renal failure," by Graham McGregor Bull. Each essayist presents original and important work, and the uninhibited give-and-take of the discussion brings out the shadows as well as the highlights.

Luetscher details the most recent results of his important studies on sodium-retaining substances in the urine of patients with the nephrotic syndrome as well as the role of these substances in the pathogenesis of the edema. He finds that the sodium-retaining activity of nephrotic urine resides in a single chromatographic fraction with the reactions of an adrenocortical steroid.

Miller presents remarkable results with homotransplantation of the kidney in man. In one patient the transplanted kidney functioned for more than 5 mo. In an individual with polycystic disease, the transplanted kidney formed 2850 ml of urine on the 18th day, and on the 21st day there was an inulin clearance of 14.4 ml/min as contrasted with 2.1 ml by the polycystic kidneys.

Bull's work concerns renal function and treatment in acute tubular necrosis. Contrary to much (not all) opinion in this country, Bull prefers conservative management to dialysis.

The content of this volume is more clinical than that of the four preceding ones. It can be heartily recommended to clinicians interested in kidney disease, and it will prove of value to workers in renal physiology.

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Diagnostic Cytologique du Cancer Génital chez la Femme. Raymond Bourg, Claude Gompel, and Jean-Paul Pundel. Masson, Paris, 1954. xiv + 176 pp. + atlas. Illus. + 84 plates. F. 4800.

For the English-speaking reader, the main interest of this book lies in the fact that, according to the authors, this is the first book in French that deals with the cytological diagnosis of genital cancer of the woman. Written for the use of practicing physicians, the book gives a comprehensive and vivid description of the usefulness, limitations, methods, and techniques of exfoliative cytology in investigation of female genital pathology. The illustrations and microphotographs, which comprise the larger part of the book, are clear and instructive and should prove very helpful to anyone starting to investigate exfoliated cells. A short description of the cyclic changes that occur in the vaginal epithelium and of their importance in the study of normal hormonal functions might have made the treatment of the subject more complete. The book may be of great value in disseminating the knowledge of a method, the importance of which has been proved and is now routinely used throughout America.

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Isotopic Gas Analysis for Biochemists. R. F. Glascock. Academic Press, New York, 1954. viii + 247 pp. Illus. $5.80.

Methods for the radioactive analysis of carbon-14 and tritium as gaseous compounds are generally more sensitive and more precise than solid-sample radioactive assay procedures. Although gas-phase procedures have been used for many years, such methods are not as widely used as they could be. Part of this lack of use stems from the expense for complex gas-handling and electronic equipment, but part of the trouble comes from lack of usable information for

the biochemist. The author of this book has tried to correct this situation by reviewing known methods of radioactive gas analysis that are of interest to biochemists. The major subjects covered include vacuum techniques, gas-phase assay of carbon-14, combustion of labeled compounds, and assay procedures for deuterium and tritium. A short section on the synthesis of tritium-labeled compounds is interesting, but it is not indicated by the title.

In several respects the title of this book is misleading. Generalized isotopic gas-analysis methods are not discussed in detail but rather the preparation of samples for isotopic gas analysis. The gas-analysis methods that are described are mostly for radioactive isotopes. No discussion is presented on mass spectrometer or infrared isotopic gas analysis. The book is primarily a laboratory manual devoted to the gas-handling techniques in use in the author's laboratory, and no effort has been made to give a systematic review of the literature on vacuum and gas-handling techniques or on isotopic analysis methods.

The radioactive gas-assay procedures for carbon-14 that are discussed in some detail include Geiger counting of CO_2 using CS_2, proportional counting of CO_2 and acetylene, and ionization chamber assay. The section on the Brown-Miller method for Geiger counting of CO_2–CS_2 mixtures is very interesting. This excellent procedure is not as widely used in the United States as it might be, and perhaps this book may help.

A considerable section of the book is used to describe procedures for the combustion of labeled compounds either by the Van Slyke oxidation mixture or by using various dry combustion methods. This is a very critical part of isotopic gas analysis, and such a review is needed.

This book is carefully written and well constructed and contains very few errors. It is a useful laboratory reference for the biochemist working with isotopes, particularly if he uses gas-assay procedures for carbon-14 or tritium.

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Transactions of the Symposium on Fluid Mechanics and Computing. Sponsored by the American Mathematical Society and Office of Ordnance Research, U.S. Army. Garrett Birkhoff, K. O. Friedrichs, and T. E. Sterne, Eds. Interscience, New York–London, 1954. 243 pp. Illus. $5.

This book, a reprint of 14 papers published in *Communications on Pure and Applied Mathematics*, volume VII (1954), constitutes the proceedings of the first Symposium on Applied Mathematics. The papers are concerned with modern problems of fluid mechanics (shock waves, turbulence, boundary layers, transonic flow, compressible fluid flow), and the associated mathematical problems. These last include not only analytic treatments of the complicated partial differential equations encountered in treatments of the foregoing subjects and related matters but also discussions of numerical methods of solution, including the use of large-scale computers. One paper is experimental (measurement of spherical shock waves). The contributors include many outstanding names in the fields mentioned. The treatments are authoritative and advanced, and they will interest specialists in fluid mechanics and applied mathematics.

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New Books

Marine Shells of the Western Coast of Florida. With revisions and additions to Louise M. Perry's *Marine Shells of the Southwest Coast of Florida.* Louise M. Perry and Jeanne S. Schwengel. Paleontological Res. Institution, Ithaca, N. Y., 1955. 318 pp. Paper, $6; cloth, $7.

Practical Horticulture. James S. Shoemaker and Benjamin J. E. Teskey. Wiley, New York; Chapman & Hall, London, 1955. 374 pp. $4.20.

Management of Addictions. Edward Podolsky, Ed. Philosophical Library, New York, 1955. 413 pp. $7.50.

Physical Chemistry. Farrington Daniels and Robert A. Alberty. Wiley, New York; Chapman & Hall, London, 1955. 671 pp. $6.50.

The Biology of the Amphibia (unabridged republication of ed. 1). G. Kingsley Noble. Dover, New York, 1955. 577 pp. $4.95.

Optical Properties of Thin Solid Films. O. S. Heavens. Academic Press, New York; Butterworths, London, 1955. 261 pp. $6.80.

A Manual of Medical Virology. S. S. Kalter and J. E. Prier. Burgess, Minneapolis, 1955. 127 pp. $3.50.

Astronomy. A textbook for university and college students. Robert H. Baker. Van Nostrand, New York–London, ed. 6, 1955. 528 pp. $5.50.

Neutron Diffraction. G. E. Bacon. Oxford Univ. Press, New York–London, 1955. 299 pp. $5.60.

Organic Solvents: Physical Properties and Methods of Purification. vol. VII, *Technique of Organic Chemistry.* Arnold Weissberger, Ed. Interscience, New York–London, ed. 2, 1955. 552 pp. $8.50.

Baba of Karo. A woman of the Moslem Hausa. Mary Smith. Philosophical Library, New York, 1955. 299 pp. $7.50.

American Agriculture: Its Structure and Place in the Economy. Ronald L. Mighell. Wiley, New York; Chapman & Hall, London, 1955. 187 pp. $5.

Target: Earth. The role of large meteors in earth science. Allan O. Kelly and Frank Dachille. Target Earth, Box 335, Carlsbad, Calif., 1953. 263 pp. $5.

Bacterial Toxins. W. E. Van Heyningen. Blackwell, Oxford, Eng.; Charles C. Thomas, Springfield, Ill., 1955. 133 pp. $3.50.

Methods of Quantitative Micro-Analysis. R. F. Milton and W. A. Waters, Eds. St Martin's Press, New York and Arnold, London, ed. 2, 1955. 742 pp. $15.

Quantitative Methods in Histology and Microscopic Histochemistry. Olavi Eranko, Karger, Basel, Switzerland; Little, Brown, Boston, 1955. 160 pp. F. 19.75.

Household Physics. A textbook for college students in home economics. Madalyn Avery. Macmillan, New York, ed. 3, 1955. 472 pp. $5.50.