Book Reviews

Legal Medicine. Pathology and Toxicology. Thomas A. Gonzales, Morgan Vance, Milton Helpern, and Charles J. Umberger. Appleton-Century-Crofts, New York, ed. 2, 1954. 1297 pp. $22.

This extremely well-organized textbook is more fascinating than the most skilfully written detective story or the best-illustrated treatise on pathology, perhaps because the intriguing elements of each are so thoroughly blended. It is much more than an excellent textbook on pathology written with emphasis on items in the specialty that have medicolegal importance; it is a carefully integrated book in which the contributions of medicine and law are fused.

As in the previous edition, the major portion of the volume is devoted to pathological problems in forensic medicine —that is, medical problems arising in the professional practice of law.

The first edition in 1937 contained 706 pages and a 14-page appendix on the organization and statistics of the Office of the Chief Medical Examiner of the City of New York. The second edition has been increased to 1297 pages; it has a 14-page appendix on qualitative chemical analysis and the text of the law that established the Office of the Chief Medical Examiner of the City of New York. The index of the present volume, as in the case of the original edition, is a respectable 2.7 percent of the total number of pages. In addition, there is á greater than usual amount of cross-referencing in the text itself, which makes for ease in locating all data on each topic.

The three chapters on medical jurisprudence, a term limited by the authors to the area of the law that is concerned with the regulations governing the professional practice of physicians, have been increased from 17 pages to a total of 47 with an added section on medical testimony in court. The topic of malpractice has been expanded to 12½ pages, the section on insanity to 18. Invaluable advice is given to the physician who is called to handle an emergency.

Occupational toxicology, a specialty in itself with obvious medicolegal aspects, is adequately covered.

The chapter on ethyl alcohol has a penetrating analysis of the medicolegal aspects of intoxication combined with a careful evaluation of experimental work on this subject. In this chapter, there are cross references to an earlier section on the influence of alcohol on trauma and the medicolegal aspects of the handling of injured alcoholics.

The volume should be helpful to law students who are engaged in preparing cases for trial in moot court and will be an especially valuable basic reference for the practicing attorney. It should find its place with the standard hornbooks on various areas of the law. The explanations of the effect of fatal variance between pleadings and evidence, burden of proof, directed verdict, and the doctrine of *res ipsa loquitur* are unusually clear. An excellent illustration of causal relationship is found in the material on fatalities following surgery. The section on malpractice, equally valuable to medical and to law students, is a concise exposition of tort action arising out of contract.

There is an interesting presentation, in a few words, of the origins of the coroner system, its disadvantages, and the growing trend to its replacement by the medical examiner system. The excellence of the book itself, which was written by members of the Office of the Chief Medical Examiner of the City of New York, is a very convincing argument for the medical examiner system.

LEON H. WARREN
Clinical Investigation Department, Parke, Davis & Company

Photosynthesis. Monograph on biochemical subjects. Robert Hill and C. P. Whittingham. Methuen, London; Wiley, New York, 1955. vii + 165 pp. Illus. $2.

In a field as diverse and complex as photosynthesis, space limitations force writers of review articles to produce either specialized discussions of narrow fragments of the field or accounts so brief that they are little better than annotated bibliographies. Complete monographs (such as the excellent two-volume work, *Photosynthesis,* by E. Rabinowitch) tend to become veritable encyclopedias, which are so long and involve so many different disciplines that few, if any, experts could claim to be competent in all parts of the material covered. For these reasons, Hill and Whittingham's short monograph is especially welcome. It should serve admirably as an introduction to photosynthesis or as a general review for those who specialize in some restricted phase of the subject.

Although this book is, generally speaking, a popular account, it does demand some familiarity on the part of the reader with the facts and language of chemistry and physiology. It is a readable book, with few tables and no footnotes. Its authors have maintained a good balance between the theoretical and experimental approaches to the subject. All important aspects of photosynthesis are adequately outlined, but the biochemistry of the problem is treated in somewhat greater detail than are its physiology and physical chemistry. I noticed a few minor misstatements in Chapters 2 and 3, but they are probably of interest only to specialists.

This monograph should be read by biochemists and physiologists and, indeed, by everyone who is interested in the fascinating problem of photosynthesis.

ROBERT LIVINGSTON
Department of Chemistry, University of Minnesota

Kinships of Animals and Man. A textbook of animal biology. Ann H. Morgan. McGraw-Hill, New York, 1955. 839 pp. Illus. $6.75.

When I was asked to review this book, I agreed, thinking it was about the kinships of animals and man, about the ever-fascinating problem of man's place in nature. To my surprise, the book turned out to be a quite conventional introductory textbook of zoology. Why do we have this current fashion of putting *man* into the titles of biological books and biological courses? When it is the same old material, served up in the same old way, it looks like some kind of a trick to catch the trade. The general education people have a point, I think, in trying to encourage biologists to stress human implications in some of their courses; but the biologists are hardly cooperating by the lip service of changing titles only.

As far as I can judge, Ann Morgan has written a good introductory textbook for zoology. She starts out with a section on "The foundation," which covers some of the elementary ideas of physics, physical chemistry, and cellular physiology in a simple-minded sort of way, probably appropriate for ignorant freshmen. She then, in part 2, devotes three chap-

ters to ecology. This introduction of ecological concepts early seems to me an excellent idea. She might have caught student interest more easily by starting with this, leaving matter, energy, and cellular mysteries for some later part of the book. The third section of the book, called "The internal environment of the body," is a rather lengthy review of organ systems, with primary attention to vertebrates (including man). Development and heredity are then disposed of in two short chapters. The fifth and longest section of the book is called "Evolution and animals," but it is really a straightforward review of the invertebrate phyla and the vertebrate classes. Evolution itself is covered in a short terminal chapter. The book is liberally and often very aptly illustrated, sometimes with striking pictures from little-known sources.

How one would choose between this book and a dozen or so others in selecting a textbook for a course, I do not know. This has almost everything: the phyletic approach, the functional approach, the ecologic approach, along with occasional bows to human physiology and anatomy, and some nice pictures.

MARSTON BATES
Department of Zoology,
University of Michigan

Krebiozen: the Great Cancer Mystery. George D. Stoddard. Beacon, Boston, 1955. ix + 282 pp. $3.50.

Often the violence of controversies over the treatment of a disease has been proportional to ignorance or to lack of knowledge that was either nonexistent, or withheld, or both. When tensions are further stretched by elements in a disease of overwhelming importance to suffering mankind and by factors of prestige and money intermingled with idealism and scientific purposes, when the situation is obfuscated by secretiveness and suspicions of quackery and tautened by institutional, governmental, political, and religious interests, there is likely to be an explosion. Since cancer research contains all of these elements, explosive controversies over the treatment of cancer have occurred in the past. The most recent and severe is the controversy over the claims for krebiozen as an agent for the treatment of malignant tumors. This controversy is the subject of this book by George D. Stoddard, former president of the University of Illinois.

The chief "mystery" in the story is the incompletely disclosed nature of krebiozen. The material is said to have been obtained by Stevan Durovic, in costly experiments in Argentina, by extraction from the blood of horses that he had treated in some manner to stimulate the reticulo-endothelial system. Only a small quantity of the material (about 2 grams) was obtained, and this was dissolved in a large quantity of mineral oil and put up in many thousands of ampoules. Apparently, none of the "powder" has been made available for independent analysis and testing. Hence krebiozen is in the class of secret remedies.

In 1949 or 1950, Durovic interested Andrew C. Ivey in his claims for the value of krebiozen for the treatment of cancer. In 1951, Ivy presented a report on it at a semipublic meeting at the Drake Hotel in Chicago. Thereafter, clamor arose and a series of events started that resulted in conflicts involving the faculty and trustees of the University of Illinois, in arousing criticism and opposition of the American Medical Association and the Chicago Medical Society, and in precipitating an investigation by the legislature of the State of Illinois. The conflict had a bearing upon the forced resignation of Stoddard as president of the University of Illinois and the deprival of Ivy of his position as one of the university's vice-presidents.

The story is told in detail in the first 139 pages of the Stoddard volume. The second part (pp. 140–274) is an appendix of reproductions of documents and excerpts from documents in the case. There is a good index at the end. The body of the book is well organized and written in a lively dramatic style.

This book about a controversy involving academic freedom aroused a controversy over the freedom of the press. An unsuccessful attempt was made by the opposing side to have the book suppressed by legal injunction in Massachusetts prior to its publication.

While much of this story is as tragic as it is interesting, the main question whether or not krebiozen is of any value in the treatment of cancer is still the important consideration. Others not directly connected with Durovic and Ivy, notably the Cole Committee, have found that the claims made for krebiozen were not warranted. In the opinion of the Cole Committee, krebiozen has no curative value in the treatment of cancer. The committee suggested that further studies of its possible ameliorating effects might be considered, but that it would be futile and inconclusive to conduct further investigations unless the chemical nature and properties are determined and disclosed under conditions by which the financial and scientific interests of the originators will be protected.

For the testing of proposed treatments of cancer, there are some excellent plans and places in the United States. In these, full disclosure of information is shared by investigators and referees. On the other hand, obstacles, almost insuperable, interpose themselves when the remedy is a secret. In spite of both of these considerations there is a need to strengthen and broaden this testing system. This, however, is part of the larger problem of making arrangements for the clinical testing of new drugs.

STANHOPE BAYNE-JONES
Washington, D.C.

Forestry and Related Research in North America. Frank H. Kaufert and William H. Cummings. Society of American Foresters, Washington, D.C., 1955. viii + 280 pp. $5.

This book presents a concise and well-written report on a reexamination of the entire structure of forestry research programs in the United States, Canada, and Mexico. A reappraisal at this time would determine whether the progress being made in research is adequate in the light of the importance of forest resources in the economic and social welfare of the nation. This report, which covers 15 subject-matter sections, is unquestionably the most comprehensive treatment of a national program for forestry research ever published. It not only deals with timber resources, their products and utilization, but also includes the aspects of wildlife, range, watershed, and recreation that have their basis in forest lands. The purpose of the report is well summarized in the statement: "Research has played a major role in the development and utilization of the forestry and related resources of the nation. It can be an even greater determining factor in the future if developed along the lines suggested in this report."

Of particular interest is the excellent history of the development of forestry research. The first trained scientist to study the forests of North America was the French botanist André Michaux, who in 1785 was sent here by the French Government. There are numerous tables that show various classifications of expenditures by the major research fields. Of greatest interest to all specialists will be the 15 subject-matter sections that make up two-thirds of the book. The survey data for each subject section —that is, genetics, soils, silviculture, ecology, and forest management—are clearly and concisely summarized as follows: (i) development and accomplishments, (ii) expenditures and personnel, (iii) problems requiring research, and (iv) recommendations. These data furnished the basis for the chapters on "The national program summarized" and "Recommendations and goals for the next quarter-century."