speaker horns. At the end are a number of appendixes dealing with some of the items of mathematical interest noted in the text but not elaborated upon there, and a short list of transforms.

The particular transform employed in this work is the p-multiplied Laplace transform. It is largely a matter of personal taste whether the Laplace transform be used in its original form or with the additional p multiplier; but it is a pleasure to note that the author tags his choice of the p-multiplied transform with an explicit label. Accordingly, there can be no misunderstanding as to which transform is being used. He is also to be congratulated upon his use of it throughout for the imaginary unit, despite its avoidance by most electrical engineers of the present day.

McLachlan's book contains an excellent bibliography (273 items) and an unusually serviceable index. It seems to be very well printed, with the possible exception of some of the figures, where certain of the lines appear much too heavy for the size of the cut.

This second edition appears to be a marked improvement upon the earlier work. It is a noteworthy book in its field.

RONALD M. FOSTER

Department of Mathematics,
Polytechnic Institute of Brooklyn

The Coalfields of Great Britain. Arthur Trueman, Ed. Edward Arnold, London; St. Martin's Press, New York, 1954. xi+396 pp. Illus.+plates. $15.

This book is the first review of the state of knowledge in this subject since the 1927 revision of Walcot Gibson's *Coal in Great Britain.* Here is a condensed and elementary summary of the geologic theories and mechanisms of the laying down of coal beds and a series of chapters describing the history, present condition, and future prospects for the 11 major coal fields of England, Scotland, and Wales.

The editor is author of the first four chapters elucidating the present theories of the origin of coal, with special emphasis on fossils and geologic characteristics of the different seams that make it possible to correlate their occurrence and properties not only in Great Britain but across the English Channel as well.

The balance of the book consists of 11 chapters on the major fields, authored by nine geologists of universities and the Geological Survey. In a standardized systematic outline, they describe for each field the general historical background, the sequence of sedimentary rocks, and detailed characteristics and sequences of the major coal seams. Each chapter concludes with a brief estimate of the existing reserves and the future potential production. These condensed reviews are for reference and not for reading.

This book will be of particular interest to students and to industrial management who need a condensed and general review. It is a reference book for those who want to make a start in the study of a particular coal field. Those who need more detailed information will find the selected references of great value.

The coal industry of the United States, even though it is much younger, is already plagued by many of the troubles that stand out in this book. Records of workings are nonexistent or incomplete, and the correlation of mining and drilling information is not sufficient to allow accurate estimates of the quantity and quality of coal that can be recovered economically in the future. Today there are rapid developments in mineral exploration techniques, in mechanized mining, in coal cleaning, in coal utilization, and in the economics of competitive fuels. The interdependence of these factors makes even short-range planning difficult. This book makes its contribution in bringing together the scattered and incomplete knowledge in the sphere of the geologist and the mining engineer. Immense amounts of work remain to be done before the British (and we) know where and how much coal there is, and how it can be mined.

GEORGE D. CREELMAN

Creelman Associates, Cleveland, Ohio

Endokrinologische Psychiatrie. M. Bleuler. Georg Thieme, Stuttgart, 1954. xi+498 pp. Dm 46.50. (U.S. distrib., Intercontinental Medical Book, New York).

M. Bleuler explains (i) the description of psychic specific maladies in cases of endocrinological anomalies, (ii) the teaching of the interrelationship of endocrine and psychic conditions as they coexist in the same individual, or if they influence one another, and (iii) the teaching if and in what ways personality disturbances can be influenced by endocrinological means. He emphasizes the importance of the knowledge of endocrine *psychology.* Up to now the research has been based on pathologic conditions with the result of multa rather than multum. The endocrinologist should make his studies in the clinic of psychiatric patients and the psychiatrist in the workshop of the endocrinologist.

Bleuler's work consists of 380 original text pages, 117 pages of bibliography with 2717 references. Bleuler was guest scholar in the Endocrinological Clinic of the New York Hospital and the Payne-Whitney Psychiatric Clinic to observe the intimate cooperation between psychiatrists with specialists of other medical services. His statements are based on clinical experience, and it is surprising that he very often avoided projection techniques such as the Rorschach, thematic apperception test, Bernreuter test, Szondi, and others. I do not agree with disregarding a battery of tests. I agree with him in using them only as the basis for psychological examination and judgment.

The book is divided into two parts: psychopathology of the endocrine maladies and endocrinology of psychopathology. Bleuler draws the following conclusions: (i) Many schizophrenics are endocrinologically healthy. There is no uniform endocrine pathology for all schizophrenic diseases. (ii) The several endocrine disturbances are generally not accompanied by schizo-

phrenia. (iii) Some mild endocrine disturbances are found oftener in schizophrenics than in healthy persons. This is understandable if we realize that schizophrenia is genetically not a uniform pathologic documentation. The concept of schizophrenia includes psychological, sociological, and statistical constitutional facts.

In respect to therapy, Bleuler follows more or less the recommendation of French and English scholars by applying an individual hormonal therapy for psychotics in cases of endocrinal components in psychic diseases.

ALBERT REISSNER

Alfred Adler Consultation Center and Mental Hygiene Clinic, New York

Diagnosis and Treatment of the Acute Phase of Poliomyelitis and Its Complications. Albert G. Bower, Ed. Williams & Wilkins, Baltimore, 1954. x + 257 pp. Illus. $6.50.

Albert Bower, with 14 contributing authors, has assembled a most valuable book on the diagnosis and treatment of the poliomyelitis patient. It is important, first of all because it brings together in a single textbook material that up to now was widely scattered in the medical literature. He has done this by integrating the contributions from the various fields of radiology, anesthesiology, orthopedics, physical medicine, otolaryngology, and obstetrics into the general medical management of the patient. Second, the book is helpful because it presents the current methods of treatment that are the culmination of 25 years' experience in the care of more than 18,000 polio patients at the Los Angeles County Hospital. Bower, furthermore, presents these techniques in a simple, easily understood style with sufficient illustrations and detail to make them easily transferable to a house-officers' manual or a list of nursing procedures. And extrapolating from the Los Angeles County Hospital experience, in the last chapter, he suggests how this material can be applied by describing what "one small community" of Washoe County, Nevada, had done to meet the problem of poliomyelitis.

Although I have no serious criticism of this fine book, I wish that the list of contributing disciplines included psychiatry for help in the management of frequent emotional problems of the polio patient, problems well emphasized, by the way, in early chapters of the book. In this regard too, the contributions to the patient and physician of the social worker and the local chapters of the National Foundation for Infantile Paralysis could have been described. Likewise, pediatric emphasis seemed lacking in dealing with the disease in infants and young children, with whom a number of procedures highly recommended for adults seem impractical. One might wish as well for more detail on physical therapy. This chapter received only one-third of the space given to orthopedics, for example. Also, a considerable number of drugs were listed by proprietary names, thus lessening the usefulness of the book where it might be most helpful—in remote or foreign areas. There is an inherent danger in basing a book on a single group's experience, because evaluation of certain techniques (in this case the electrophrenic respirator) might be contrary to a more widespread opinion. But these minor criticisms should in no way detract from the book's value to doctors, nurses, physical therapists, health officers, and other groups interested in the problems of poliomyelitis today.

JOHN P. UTZ

National Institutes of Health, Bethesda, Maryland

Television. The electronics of image transmission in color and monochrome. V. K. Zworykin and G. A. Morton. Wiley, New York; Chapman & Hall, London, ed. 2, 1954. xv + 1037 pp. Illus. $17.50.

This book is an up-to-date revision of the well-known television textbook by these same authors published in 1940. Because of the rapid growth of the television field in the past decade, the original work had become somewhat of a museum piece, even though it contained much valuable material that has not found any counterpart in later textbooks. This latter fact has undoubtedly been responsible for the success achieved by it in continuing to hold its place as a leading source book on television theory and practice, even after the appearance of other books whose presentations reflected more fully the continuing development of television technology. It is therefore to be expected that a revised edition will be eagerly welcomed, especially in view of the fact that several new developments in the field had not yet been adequately treated in any existing textbook. Foremost among these is the advent of compatible color television.

In most respects, this revised edition will not disappoint those who hold high expectations for it. It retains that material from the earlier edition not given comparable treatment in more recent general television textbooks, and in some instances this material has been revised to take into account facts of very recent origin. Also, a great quantity of entirely new material has been added. Thus, semiconductors, color television, the new vidicon pickup tube, and modern refinements in picture display systems are discussed in considerable detail.

On the debit side, it must be noted that the new sections, particularly those on color television, show evidence of having been put together rather hastily. Some passages are worded in such a way that they are difficult to understand, and some of the diagrams contain errors. Finally, the subject index is so short in proportion to the total bulk of the book that its use leads mostly to frustration. However, these are all relatively minor objections. The book can be highly recommended as a good source of information on television theory and practice.

DONALD C. LIVINGSTON

Physics Laboratory, Sylvania Electric Products, Inc.