it as well as those of several other analysts who have proposed modified techniques. Two chapters are taken up with the therapeutic consequences of a defensive stratagem encountered in some patients: bringing in material from a period in their lives earlier than the time of the pathogenic experiences. The devices of cutting down the frequency of appointments or temporarily interrupting the treatment help overcome this obstacle, Alexander says.

One of the most interesting parts of the book is the collection of answers to a brief questionnaire that Alexander sent to a number of the leading figures in psychiatric and psychoanalytic education. These contain many thoughtful statements about the difficulties of sensibly differentiating the teaching of psychiatric residents and of psychoanalytic candidates. Now that psychoanalytic theory is such an integral part of psychiatry, a number of teachers frankly bring into the open their doubts about present traditions and methods of training for psychoanalysis and psychotherapy, and a few of them point out the need for better research training in these fields.

On the whole, the book will be of most interest and value to psychoanalysts and psychotherapists who are concerned with understanding their techniques of treating patients and training future colleagues. The onlooker from other disciplines who is primarily interested in the scientific and theoretical aspects of psychoanalysis and psychotherapy will find little here that is directly nutritive, although there is a good deal that can help him to understand the idiosyncrasies of psychoanalysis as a science.

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Bacterial Anatomy. Sixth symposium of the Society for General Microbiology held at the Royal Institution, London, April 1956. E. T. C. Spooner and B. A. D. Stocker, Eds. Cambridge University Press, Cambridge, England, 1956. 360 pp. Illus. + plates. $6.

This book is a stimulating addition to the literature. It is technically descriptive, analytic, and often provocative, according to the spirit and wit of the individual and highly competent authors. The 15 articles were published before the symposium, so that discussion could be the main business of the meeting. The book could well serve to repeat the original and admirable intent of the society as a basis for discussion in many laboratories around the world.

The first half of the book might be considered an extension of the initial symposium of the series [*The Nature of the Bacterial Surface* A. A. Miles and N. W. Pirie, Eds. (Blackwell, Oxford, 1949)] and reflects much of the most provocative ensuing work on superficial structures—for example, flagella (B. A. D. Stocker). Contributions on the characteristics and capabilities of protoplasts (C. Weibull and K. McQuillen), osmotic regulation (P. Mitchell and Jennifer Moyle), the nature of cell walls (M. R. J. Salton), and an ingenious immunological analysis of the distribution of constituents in complex capsules (J. Tomcsik) clearly underline a current direction of attention to the physical and chemical nature of cell surfaces and to the definition of the structure and functions of these regions. These lucid articles represent analytic approaches, mainly biochemical, with important structural overtones. A description of the crystalloid protein and other inclusions found in certain *Bacillus* sp. during sporulation is a fascinating contribution (C. L. Hannay) and points to new areas of study. The toxic role of these inclusions in insect disease has been demonstrated.

The complex and often confusing literature on the form and division of bacterial chromatin structures is considered in two vigorous and philosophically dissimilar articles. On the one hand, C. F. Robinow describes the behavior of chromatin bodies, discusses their cytological status in general biological terms, and argues strongly for differentiation (in properties, behavior, and descriptive terminology) of chromatin bodies from analogous organelles in most other kinds of cells. On the other hand, E. D. DeLamater assumes the acceptability of a mitotic process of chromosomal separation in a bacterial nucleus, describes his observations in those defined terms, and cites synchronization experiments, which he feels support his case. Helpful for those following these differences of approach and interpretation is an appended section to Robinow's article examining "the alleged evidence of mitosis in bacteria." One might have hoped that the general article on "Chromosomes in micro-organisms" (C. G. Elliot) would give a more useful perspective from outside the field of battle, but the pronouncements are not particularly illuminating.

The uncertainties of preservation involved in preparation for ultrathin sectioning and electron microscopy are clearly defined by O. Maaløe and A. Birch-Andersen. These authors describe a new epoxy resin imbedding technique that may be of good use. Their paper and the deceptively persuasive prose of J. R. G. Bradfield concerning cytoplasmic organization really emphasize that we are not yet in a position to interpret the fine structure of the bacterial protoplast, but they are nevertheless helpful assessments of our current state.

This book will be a source of information and enjoyment to bacteriologists, to the biologist who would like to examine "the resemblances of things," and to the advanced student who would like to stray from the strict confines of course-work.

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Ultrasonic Engineering with Particular Reference to High Power Applications. Alan E. Crawford. Academic Press, New York; Butterworths, London, 1955. x + 344 pp. Illus. $8.

This book contains a survey of current practice in the use of vibration, sound, and ultrasonics of high amplitude for practical purposes. It also provides a review of pertinent scientific literature, suitable for orientation of the would-be user. An extensive, but nevertheless carefully selected, bibliography follows each chapter.

The author is successful in presenting a large amount of useful and interesting material at a satisfying scientific level without use of mathematics beyond simple algebra. Two chapters contain general introductory acoustical facts and a 20-page discussion of cavitation phenomena. In four chapters a good deal of practical data is given on transducers and generators now in use. Six chapters treat applications of high-amplitude sound and ultrasonics; detailed information is given on *precipitation and agglomeration, emulsification and dispersion, chemical applications, metallurgical applications, coating of metals* (*soldering*), and *biological applications.* A final chapter treats applications of sound for measuring and testing (rather than producing changes in) materials.

This book will be a very good one for that wide audience of persons, not specialists in acoustics and ultrasonics, who wish to know the possibilities of high-amplitude sound for their application. The specialist will also find much useful information here but will want to complement this source with others, especially for the necessary mathematical theory.

A small lament might be entered. The title follows a common departure from standard terminology in its use of the adjective *ultrasonic.* The latter should refer to sound whose frequency is above the audible range, whereas the subject of this book naturally involves sound of *all* frequencies, since many of the effects