listen to their contemporaries in related fields. The volume thus offers an opportunity to curl up during the winter months, if this can be done with a book weighing seven pounds, and study in detail the papers missed either through human weakness or the restrictions imposed by concurrent sessions.

The situation, however, is not quite this simple. The society has since held a 4th symposium, in June of 1963 at Warsaw, from which a proceedings volume of equal or greater size will eventually emerge. Since the investigators are now busy decoding information that will form the substance of the 5th symposium, planned for Florence in commemoration of the 400th anniversary of Galileo, one can well raise the question of where to find time for the study of somewhat antiquated earlier compendia. For the contents to be really useful the volume should be prepared by faster and less costly photo-offset processes.

It would be ungrateful not to mention that in the tradition of formally printed technical books, the editor W. Priester has maintained the fine quality of presentation and figure reproduction typical of Space Research I and II. In the galaxy of papers constituting volume III several contributions stand out as stars of the first magnitude. These selections necessarily reflect the tastes and interests of the critic. Two interrelated reviews, on plasma emission from the sun by C. deJager of the University of Utrecht and the acceleration and propagation of fast particles in interplanetary space by Juan G. Roederer of the University of Buenos Aires, help to correlate the vast amount of observations in this field. A. A. Mikhailov of the USSR Academy of Science reviews the methods employed in the measurement of the astronomical unit of length from the early parallax measurements of the 17th century to present-day radar techniques. He concludes that this fundamental parameter has a value of 149 550 000 km with a limiting error not exceeding ±50 000 km. The use of cloud chambers to study galactic and solar electrons at balloon elevations by James A. Earl of the University of Minnesota is noteworthy in the use of an old temperamentally land-based tool in a new difficult environment, which permits study of an extraterrestrial electronic component. God must have loved electrons, he made so many of them. Their ubiquity, however, confounds the experimentalist when seeking to establish their presence as a primary breed near the top of the atmosphere. The use of another established tool, one of somewhat lesser antiquity than the Wilson cloud chamber, the nuclear emulsion, is described by the US Naval Cosmic Ray Group as a means of studying the fragmentation of massive primordial cosmic-ray nuclei by collision with interstellar gas. Not all the contributions have as broad a scope. The volume contains a number of articles dealing with minor flares and magnetic storms, whose descriptive details will entice only a rather limited coterie. In general, the book represents a useful addition to the literature on space research.

Classical Electromagnetic Theory. By Nunzio Tralli. 308 pp. McGraw-Hill, New York, 1963. $9.95.
Reviewed by ***L. H. Bennett,*** *National Bureau of Standards and University of Maryland.*

There are a surprisingly large number of advanced topics considered in this short text intended for senior undergraduate or freshman graduate physics students. Green's-function method, conformal mapping, the Hertz potential, and the electromagnetic stress tensor as well as the Lagrangian and Hamiltonian formulations of the electromagnetic field are all presented. An interesting feature is the introduction of the magnetic field after special relativity. An elementary mathematical treatment of vectors and tensors comprises the first chapter.

The trick to presenting so many topics in so short a space is brevity of treatment. There is, in fact, very little of the type of discussions which characterize texts such as those by Panofsky and Phillips or by Jackson. Thus, this book is not useful for self-study, but, of course, it is not intended for this purpose. Some teachers will like the brief presentations, preferring to fill in the discussion in class. An example of the brevity is found in the

potential expansion, where the quadrupole term is shown but not named.

This text is on a less advanced level than the two above-mentioned texts. Among the topics omitted entirely are four-vectors, Cerenkov radiation, and the Doppler shift. Plasma physics is treated only in the problems. The mathematical methods are shown clearly whenever needed, and are directed to a less mature audience than are Panofsky and Phillips or Jackson. One characteristic of the style which is not appreciated by this reviewer is the writing out of matrices and integrals *in extenso*.

Rationalized mks units are used. The problems at the end of each chapter are carefully written and appropriate.

In summary, this book is recommended as a modern text in electrodynamics, especially for advanced undergraduate use.

A Stress Analysis of a Strapless Evening Gown and Other Essays for a Scientific Age. Robert A. Baker, ed. 192 pp. Prentice-Hall, Englewood Cliffs, N. J., 1963. $3.95.

Reviewed by ***J. Gillis,*** *Weizmann Institute of Science, Rehovot, Israel*

The purpose is to establish the proposition that scientists are human, or at any rate not less so than most other people. The method of proof is to reprint a collection of essays, some by scientists and others about them, all written with humorous intent. The proof is less than rigorous and would not have satisfied the reviewer but for the fact that he had never doubted the central proposition.

The essays are taken from a wide variety of sources, including *American Scientist, Drug and Cosmetic Industries,* the *Journal of the American Statistical Association,* and the *Journal of Irreproducible Results.* The level of humor varies considerably, in fact ranges fairly evenly from the puerile to the subtle. The printing and illustrations are elegant, and the book is good value for an evening's mild entertainment.

The essay which provides the title is neither the first nor the longest, nor is it particularly representative of the contents of the book. One feels that the motivation behind the choice of title was similar to that which determines the covers of pocket-books. The timing of publication in relation to the gift buying season was probably also not accidental.

Having said this much about the book itself, the reviewer now feels entitled to speculate on a few topics which rise to mind. He was taught in his youth that it was unreasonable to expect a genius to behave like a normal human being since, after all, it was not normal to be a genius. The attitude makes sense but the facts are against it. Experience has shown him that the truly great geniuses are nearly always decent, sociable, housetrained, and perfectly respectable members of society. It is the second-raters, those who have just failed to make it, who so often find it necessary to display their eccentricities as supplementary evidence of genius. He has also noticed that this display of sub-genial eccentricity is generally a deliberate act without emotional sincerity. It usually takes the form of demonstrative rudeness, always directed at strangers, underlings, or others who cannot advance the scientist's career. But it normally gives way to obsequious politeness towards those who can help the great advance, if only by having names big enough to make a bang when dropped.

One can think of many exceptions to every one of the above statements, but if that sort of reason is ever allowed to invalidate a sociological theory, how many sociologists will be left in business?

Magnetic Resonance at High Pressure. By G. B. Benedek. 100 pp. Interscience, New York, 1963. $4.75.

Reviewed by ***Norman H. Nachtrieb,*** *University of Chicago.*

This little volume is highly recommended to chemists and physicists who are concerned with solid- and liquid-state research. It not only indicates the wealth of new information that can be obtained by extending magnetic resonance investigations to high pressures, but also recounts the remarkable sophistication in experimental technique that already exists. Chapter 1 deals with the pressure dependence of resonance phenomena in crystalline solids (Knight shift in alkali metals, Mössbauer effect, electron spin resonance in ionic crystals, and electric