the present time. The rapid development in this field becomes clear if one considers the literature references and their growth in the time elapsed between the completion of the two manuscripts and their publication. For future editions we wish to point out that in works of such magnitude all references in the text to tables, figures, or formulas should always be accompanied by the page reference, or else the chapter number should be put at the top of each page; as it is, one has to spend a long time finding any reference.

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Atomic Age. (Sir Halley Stewart Lectures, 1948.) M. L. Oliphant *et al.* New York: Macmillan; London: Allen and Unwin, 1949. 149 pp. $2.50.

Atomic Energy Yearbook. John Tutin, Ed. New York: Prentice-Hall, 1949. 237 pp. $3.85.

Constructive Uses of Atomic Energy. S. C. Rothmann, Ed. New York: Harper, 1949. 258 pp. $3.00.

These recent additions to the current vogue for books about atomic energy are concerned with three different phases of the subject. The Sir Halley Stewart Lectures for 1948 are reproduced in *Atomic Age*. It presents the views of the authors on the military, economic, moral, and political aspects of atomic energy. Since each of the articles epitomizes the philosophy of a different specialist, the opinions and conclusions are divergent and stimulating. The chapter by P. M. S. Blackett is a concise presentation of his widely discussed evaluation of the military consequences of atomic bombing. This is followed by a protest against this assessment, ably presented by R. F. Harrod in the chapter on "Economic Consequences of Atomic Energy." Harrod also takes issue with optimistic predictions of the blessings of atomic power. He analyzes the various ways in which the new source of energy could influence world economy and concludes that he "is skeptical about the alleged economic benefits to humanity, anyhow in this generation."

Chapters by Bertrand Russell and Lionel Curtis deal with the moral and political necessity for some kind of world government. Although they are not in agreement on all phases, both present pithy and compelling arguments for an immediate if limited union of Western democracies. Their statements on the ultimate responsibilities of the United States in the atomic age, and the article "America as Atlas" by D. W. Brogan deserve serious consideration by all responsible American citizens.

In contrast to this book, which should be of interest to all readers, the other volumes will appeal to more limited interests. The *Atomic Energy Yearbook* is an excellent summary of current nonmilitary work in atomic energy. In it are listed the development and research establishments in all countries from which the information is obtainable. Detailed and factual accounts are presented of the kinds of work in progress at these various laboratories, the available facilities, the status of the programs, and probable trends for the immediate future. The book will be most valuable to workers who are interested in a broad survey of all activities in this field.

On the other hand, the articles in *Constructive Uses of Atomic Energy* are preponderantly speculative. The reader expecting detailed information or statements of actual accomplishments will be disappointed. The book consists of a collection of 14 short essays based on articles which originally appeared in a variety of technical and trade journals such as *Electronics, Iron Age, Machine Design, Chemical Engineering,* and *Occupational Medicine*. It is intended primarily for the casual reader who is interested in general predictions of the potential nonmilitary applications of atomic energy covering such subjects as atomic energy as a human asset, atomic energy in industry and the physical sciences, atomic power for industry and aircraft, radioactive isotopes for research, medical and industrial uses. Two of the appendices are very useful contributions; one is an excellent glossary of scientific terms used in most popular and scientific literature on atomic energy, the other is a valuable and extensive bibliography which will be of interest also to workers in the field.

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An Introduction to Molecular Spectra. Raynor C. Johnson. New York: Pitman Publ., 1949. 296 pp. $7.50.

This concise introductory text on molecular spectra provides, considering its brevity, a reasonably complete summary of the major features of molecular spectra. In its general level and approach it can, perhaps, serve as a companion volume to the well-known text by White on atomic spectra. It may thus occupy a place as yet unfilled by any generally accepted book on this subject. The nearest existing approximation to such a standard text is probably the first volume of the incomplete Herzberg trilogy, which treats only of diatomic molecules. The present book covers a wider field, necessarily less completely.

No knowledge of group theory or of quantum mechanics is assumed on the part of the student. This approach has, of course, both advantages and disadvantages, but seems a wise choice for a text treating so large a subject within so narrow a compass.

It will rightly be inferred, from what has been said, that the specialist will not find very much that is new or stimulating in the book. Except insofar as he is a teacher, the inference is correct. An idea of the condensation attained may be gotten from the titles and length of some of the 15 chapters. These include, for example, Electronic States of Molecules (16 pages), Rotational Terms and Vector Couplings (10 pages), Spectra of Polyatomic Molecules (53 pages). The Zeeman effect rates 17 pages; the Stark effect is not mentioned. The references are adequate, but barely so. The index is a mere three and one-half pages.

The student completing the text will have had a good once-over-lightly introduction to the subject; the text is solid enough but there is much that is not included. Whether one calls this omission of unnecessary detail or lack of thoroughness depends on the viewpoint; this reviewer, considering the probable use of the text, leans