

BOOKS *Continued from page 35*

the Security Council on matters of substance without the concurrent votes of the five permanent members and at least two of the non-permanent members, a total of seven votes in all, so that in a sense the non-permanent members also have the veto power. In fairness it might be more to the point to insist that in all matters involving war and peace either the rule of unanimity of all members of the Security Council, permanent and non-permanent, would have to be enforced, or else that it should be eliminated altogether. For surely no sane person could argue that the small nations have less at stake in war than do the great powers. Witness Belgium, the Netherlands, Austria, Poland, and the Philippines in the last war.

Blackett's suggestions as to how to break the present impasse in the United Nations Atomic Energy Commission would have much greater merit if atomic energy, whether at war or peace, did not have features which set it wholly apart. In fact, once nuclear fuel has been made ready, someone must make the hard decision as to whether it is going to be used for peaceful or warlike purposes. This is what makes it so different from all other "commodities" and what puts the atomic bomb in a class by itself among all weapons of mass destruction, including of course bacteriological weapons. This is the reason why the United Nations Atomic Energy Commission attempted to deal first with the atomic bomb, and why it left out other weapons of mass destruction. Otherwise Blackett's suggestion that bacteriological weapons should be considered together with atomic bombs and that so many atomic bombs might be traded for so many Russian divisions, in other words, that atomic bombs should be considered on the same footing as conventional armaments, has its merits, not the least of which would be that the Soviet Union could trade something tangible for something else equally tangible. His suggestion that long-range bombers, and possibly also rockets, might be the subject of international control is also attractive.

The main lesson derived from the book under review is that no such cooperative international enterprise has a chance of acceptance in a world plagued with suspicion and poisoned with war propaganda. As was to be expected, little heed is paid to the case of small nations which always stand so much to lose from disagreements among the great powers and cannot act beyond a very limited range. Perhaps in no other field does this statement apply more strongly than in the field of atomic energy. For at present many of them must live in the fear of the atomic bomb, while others are denied a share in the more abundant life promised by the application of nuclear energy to the generation of industrial power. Who knows but that vital new ideas in this or similar directions might spring up in one of the small nations, as has happened so many times in the past?

The book makes very interesting reading. The style is easy, even racy at times. It should be on the bookshelves of anyone who, with a critical eye, wishes information on one of the most difficult and tragic problems of our day. Mexico, D. F. Manuel Sandoval Vallarta

Handy

PRACTICAL SPECTROSCOPY. By George R. Harrison, Richard C. Lord, and John R. Loofbrouow. 605 pp. Prentice-Hall, Inc., New York, 1948. \$6.65.

This is an excellent book which should be on the desk of every practicing spectroscopist, in every scientific reference library, and in classrooms where courses in general spectroscopy are taught. The scope and applications of spectroscopy are surveyed in Chapter 1, "Spectroscopy as a Scientific Tool," wherein, as it is said in the preface, "—we view the field as from a great altitude to enable the reader who is unacquainted with the methods and accomplishments of spectroscopy to judge for himself which parts, if any, may be of importance to him." The next eight chapters outline the fundamentals of spectroscopy, giving detailed information on such subjects as the principles of prism and grating spectrographs, the selection, testing, adjustment and care of spectroscopic equipment, photographic techniques, the identification of spectrum lines, and a long section on light sources for spectroscopy. A special feature is the twenty-page chapter on the illumination of the spectroscope, a subject that all too often is given either very brief treatment or none at all. There are two transition chapters which deal with the elementary theory of atomic and molecular spectra. The final nine chapters, which constitute about one-half of the book, are devoted to applications of spectroscopy to various practical fields such as absorption spectrophotometry and qualitative and quantitative spectrochemical analysis. The last four chapters, on infrared spectroscopy, the Raman effect, vacuum-ultraviolet and interferometric spectroscopy, are especially notable, and should be of great value both to students and to mature spectroscopists as brief accounts of modern practice and special applications in these fields.

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Books Received

PRACTICAL ANALYSIS, GRAPHICAL AND NUMERICAL METHODS. By Fr. A. Willers. Translated by Robert T. Beyer. 422 pp. Dover Publications, Inc., New York, 1948. \$6.00.

INTRODUCTION TO ATOMIC PHYSICS. By Otto Oldenberg. 373 pp. McGraw-Hill Book Company, Inc., New York, 1949. \$5.00.

PROBLEM BOOK IN THE THEORY OF FUNCTIONS, Vol. I. By Konrad Knopp. Translated by Lipman Bers. 126 pp. Dover Publications, Inc., New York, 1948. \$1.85.

SPECTROSCOPY AND COMBUSTION THEORY. Second Edition, Revised. By A. G. Gaydon. 242 pp. Chapman & Hall, Ltd., London, 1948. 25 s.

SCIENTIFIC GLASS BLOWING AND LABORATORY TECHNIQUES. By W. E. Barr and Victor J. Anhorn. 388 pp. Instruments Publishing Company, Pittsburgh, 1949. \$6.00.

THE AMPLIFICATION AND DISTRIBUTION OF SOUND. Second Edition. By A. E. Greenlees. 302 pp. The Sherwood Press, Pacoima, Calif., 1948. \$6.00.

EARTH CONDUCTION EFFECTS IN TRANSMISSION SYSTEMS. By Erling D. Sunde. 373 pp. D. Van Nostrand Company, Inc., New York, 1949. \$6.00.

ELEMENTARY PHOTOGRAPHY. Second Edition. By Guilford G. Quarles. 345 pp. McGraw-Hill Book Company, New York, 1948. \$4.50.