methods for determining composition as well as motion, and with clarity he unravels the clue to the shell star. After describing our galaxy and other stellar systems as far as telescopic methods can reach, he continues the spaceward journey, via radio methods, to penetrate beyond the optical limit.

The final chapter, "See for Yourself", suggests various observations for the reader to make and when to look for what. And we know he is Scottish when he discusses buying a telescope when "you are earning your own living". The conversational tone should appeal to youthful readers, as well as to older ones, who wish to be informed about matters astronomical without resorting to interpretations of technical publications by nonscientist writers. Because the author is an astronomer this book is genuine. Sky photographs are numerous and the illustrations by Mrs. Ovenden are excellent.

Books Received

Some Problems in Chemical Kinetics and Reactivity, Vol. 1 (2nd Revised Edition). By N. N. Semenov. Translated from Russian by Michel Boudart. 239 pp. Princeton U. Press, Princeton, N. J., 1958. Paperbound \$4.50.

Advances in Geophysics, Vol. 5. Edited by H. E. Landsberg and J. Van Mieghem. 325 pp. Academic Press Inc., New York, 1958. \$10.00.

Introduction to Functional Analysis. By Angus E. Taylor. 423 pp. John Wiley & Sons, Inc., New York, 1958. \$12.50.

MOMENTS OF DISCOVERY. Vol. 1, The Origins of Science; 497 pp. Vol. 2, The Development of Modern Science; 509 pp. Edited by George Schwartz and Philip W. Bishop. Basic Books, Inc., New York, 1958. 2-vol. set \$15.00.

PATTERNS OF DISCOVERY: An Inquiry into the Conceptual Foundations of Science. By Norwood Russell Hanson. 241 pp. Cambridge U. Press, New York, 1958. \$5.50.

READINGS IN LINEAR PROGRAMMING. By S. Vajda. 99 pp. John Wiley & Sons, Inc., New York, 1958. \$3.00.

PROCEEDINGS OF THE MIDWEST CONFERENCE ON THEORETI-CAL PHYSICS (Washington U., St. Louis, Mo., March 1958). 225 pp. Sponsored by Nat'l Science Foundation, 1958. Paperbound.

DER LICHTELEKTRISCHE EFFEKT UND SEINE ANWENDUNGEN (2nd Revised Edition). By H. Simon, R. Suhrmann, K. W. Böer, F. Eckart, W. Leo. 747 pp. Springer-Verlag, Berlin, Germany, 1958. DM 97.50.

GMELINS HANDBOOK OF INORGANIC CHEMISTRY (8th Revised Edition). Zirkonium, System No. 42; 448 pp.; clothbound \$63.84, paperbound \$62.64. Hafnium, Supplement, System No. 43; 23 pp.; clothbound \$5.28, paperbound \$4.08. Germanium, Supplement, System No. 45; 576 pp.; clothbound \$80.88, paperbound \$79.68. Sauerstoff, Part 3, System No. 3; 818 pp.; paperbound DM 283.00. Verlag Chemie, GmbH, Weinheim, Germany, 1958.

VOCATIONAL AND PROFESSIONAL MONOGRAPHS. No. 98, The Scientific Instrument Industry; by James R. Irving; 60 pp. No. 97, Instrument and Control Engineering; by Lloyd Slater; 46 pp. Bellman Publishing Co., Cambridge, Mass., 1958. Paperbound \$1.00 each.

PLANNING OF EXPERIMENTS. By D. R. Cox. 308 pp. John Wiley & Sons, Inc., New York, 1958. \$7.50.

PROGRESS IN SEMICONDUCTORS, Vol. 3. Edited by Alan F. Gibson, R. E. Burgess, P. Aigrain. 210 pp. John Wiley & Sons, Inc., New York, 1958. \$8.50.

ATOMS FOR PEACE SET. Prepared for US Atomic Energy Comm. by Addison-Wesiey Publishing Co., Inc., Reading, Mass., 1958. Project Sherwood: The US Program in Controlled Fusion, by Amasa S. Bishop, 216 pp., \$5.75. Radiation Biology and Medicine: Selected Reviews in the Life Sciences, edited by Walter D. Claus, 944 pp., \$11.50. The Transuranium Elements, by Glenn T. Seaborg, 331 pp., (Yale U. Press), \$7.00. Uranium Ore Processing, edited by John W. Clegg and Dennis D. Foley, 436 pp., \$7.50. Physical Metallurgy of Uranium, by A. N. Holden, 262 pp., \$5.75. Thorium Production Technology, by F. L. Cuthbert, 303 pp., \$6.50. US Research Reactor Operation and Use, edited by Joel W. Chastain, Jr., 366 pp., \$7.50. Solid Fuel Reactors, edited by Joseph R. Dietrich and Walter H. Zinn, 844 pp., \$10.75. Boiling Water Reactors, by Andrew W. Kramer, 563 pp., \$8.50. Fluid Fuel Reactors, edited by James A. Lane, H. G. MacPherson, Frank Maslan, 979 pp., \$11.50. Sodium Graphite Reactors, by Chauncey Starr and Robert W. Dickinson, 288 pp., \$6.50. The Shippingport Pressurized Water Reactor, by personnel of Naval Reactors Branch, Div. of Reactor Development, USAEC, Westinghouse Bettis Plant, Duquesne Light Co., 588 pp., \$9.50.

An Introduction to Fluid Dynamics. By F. J. Bayley. 215 pp. Interscience Publishers, Inc., New York, 1958. \$4.50.

Symposium on Information Theory in Biology (Gatlinburg, Tenn., Oct. 1956). Edited by Hubert P. Yockey, Robert L. Platzman, Henry Quastler. 418 pp. Pergamon Press, London & New York, 1958. \$12.00.

THE CHEMICAL KINETICS OF ENZYME ACTION. By Keith J. Laidler. 419 pp. Oxford U. Press, New York, 1958. \$9.60.

THE GREEN FLASH AND OTHER LOW SUN PHENOMENA. By D. J. K. O'Connell, S. J. 192 pp. (Vatican Observatory, 1958) Interscience Publishers, Inc., New York, 1958. \$6.00.

PRODUCTIVE USES OF NUCLEAR ENERGY: Report on Nuclear Process Heat in Industry. By George Perazich. 44 pp. Nat'l Planning Assoc., Washington, D. C., 1958. Paperbound \$1.25.

HOAXES (2nd Edition). By Curtis D. MacDougall. 338 pp. Dover Publications, Inc., New York, 1958. Paper-bound \$1.75.

Man's World of Sound. By John R. Pierce and Edward E. David, Jr. 287 pp. Doubleday & Co., Inc., Garden City, New York, 1958. \$5.00.

Basic Science Series. Light, by Alexander Efron, 127 pp., paperbound \$2.25. Liquids and Gases, by Alexander Efron, 117 pp., paperbound \$2.10. John F. Rider Publisher, Inc., New York, 1958.

GAS TUBES. Edited by Alexander Schure. 72 pp. John F. Rider Publisher, Inc., New York, 1958. Paperbound \$1.50. BASIC PULSES. By Irving Gottlieb. 175 pp. John F. Rider Publisher, Inc., New York, 1958. Paperbound \$3.50.

FUNDAMENTALS OF TRANSISTORS (2nd Revised Edition). By Leonard M. Krugman. 168 pp. John F. Rider Publisher, Inc., New York, 1958. Paperbound \$3,50.

PROCESS DYNAMICS: Dynamic Behavior of the Production Process. By Donald P. Campbell. 316 pp. John Wiley & Sons, Inc., New York, 1958. \$10.50. Bic Molecules. By Sir Harry Melville. 180 pp. The Macmillan Co., New York, 1958. \$3.95.

ELEMENTS OF ENGINEERING STATICS. By H. Deresiewicz. 124 pp. Columbia U. Press, New York, 1958. \$3,50.

ELEMENTS OF THE UNIVERSE. By Glenn T. Seaborg and Evans G. Valens. 253 pp. E. P. Dutton & Co., Inc., New York, 1958. \$3.95.

THERMODYNAMICS OF GASES. Vol. 12 of Handbuch der Physik. Edited by S. Flügge. 686 pp. Springer-Verlag, Berlin, Germany, 1958. DM 154.00 (subscription price DM 123.20).

EXTERNAL PROPERTIES OF ATOMIC NUCLEI. Vol. 38, Part 1 of Handbuch der Physik. Edited by S. Flügge, 471 pp. Springer-Verlag, Berlin, Germany, 1958. DM 118.00 (subscription price DM 94.40).

STATISTICAL PHYSICS. Vol. 5 of Course of Theoretical Physics. By L. D. Landau and E. M. Lifshitz. Translated from Russian by E. Peierls and R. F. Peierls. 484 pp. (Pergamon Press Ltd., England) For US and Canada only, Addison-Wesley Publishing Co., Inc., Reading, Mass., 1958, 812, 50.

SCIENCE: A Course of Selected Reading by Authorities (2nd Revised Edition). 322 pp. Internat'l University Soc., Nottingham, England, 1958.

DIFFERENCE METHODS FOR INITIAL-VALUE PROBLEMS. By Robert D. Richtmyer. 238 pp. Interscience Publishers, Inc., New Yorker, 1958. \$6.50.

ELEMENTS OF BIOPHYSICS. By James E. Randall. 333 pp. The Year Book Publishers, Inc., Chicago, Ill., 1958. \$8.00.

THE PREDICTION OF BALLISTIC MISSILE TRAJECTORIES FROM RADAR OBSERVATIONS. By Irwin I. Shapiro. 208 pp. McGraw-Hill Book Co., Inc., New York, 1958. \$7.00.

ABHANDLUNGEN AUS DEM FRITZ-HABER-INSTITUT DER MAX-PLANCK-GESELLSCHAFT. Vol. 34, 1957. 614 pp. Fritz-Haber-Institut, Berlin-Dahlem, Germany, 1958. Paperbound.

Punched Cards: Their Application to Science and Industry (2nd Revised Edition). Edited by Robert S. Casey, James W. Perry, Madeline Berry, Allen Kent. 697 pp. Reinhold Publishing Corp., New York, 1958. \$15.00.

DOVER REPRINTS. Theoretical Mechanics: An Introduction to Mathematical Physics (Reprint of 1st Edition), by Joseph Sweetman Ames and Francis D. Murnaghan, 462 pp., paperbound \$2.00. Theoretical Mechanics: Statics and the Dynamics of a Particle (Reprint of 1st Edition), by William Duncan MacMillan, 430 pp., paperbound \$2.00. Vector Analysis with an Introduction to Tensor Analysis (Reprint of 1st Edition), A. P. Wills, 285 pp., paperbound \$1.75. The Fundamental Principles of Quantum Mechanics with Elementary Applications (Reprint of 1st Edition), by Edwin C. Kemble, 611 pp., paperbound \$2.95. An Introduction to Fourier Methods and the Laplace Transformation (Reprint of 1949 Edition of Fourier Methods), by Philip Franklin, 289 pp., paperbound \$1.75. Introduction to Bessel Functions (Reprint of 1st Edition), by Frank Bowman, 135 pp., paperbound \$1.35. Dover Publications, Inc., New York, 1958.

QUANTUM ELECTRODYNAMICS: Selected Papers. Edited by Julian Schwinger. 424 pp. Dover Publications, Inc., New York, 1958. Paperbound \$2.45.

RANDOM VIBRATION: Notes for the MIT special summer program. Edited by Stephen H. Crandall. 414 pp. The Technology Press of MIT, Cambridge, Mass., 1958. Paperbound \$10.00.

COMMUNI-CATIONS PHYSICIST

Ph.D. in Physics or E.E.

Opportunity for Physicist for senior staff of Technical Military Planning Operation of General Electric at Santa Barbara, California

- Position requires broad, thorough understanding of communications: theory and phenomena
- Evaluate military and civilian communications environment and technology and originate novel communications concepts
- Serve on team studying world political, economic, social, military and technological environment over the next 20 years

TEMPO is located in Santa Barbara, California, where climate, surroundings and ready accessibility to Los Angeles (100 miles to the East) via surface and air transportation have enabled this operation of 150 personnel to create an atmosphere conducive to such long-range planning activities.

Your interest in joining TEMPO's professional staff may be communicated by submitting in confidence your resumé of experience and salaries earned to:

> R. N. Dyruff, Div. 46-MB Professional Personnel

> > **TEMPO**

GENERAL 🚳 ELECTRIC

Santa Barbara, California