features-of the picture are likely, over the short term, to be neglected or distorted.

If the real nature and the real purpose of science were merely to provide us with protection, with mere instruments of power, with mere material gains, as some less wise individuals have thought and openly proclaimed, there would be no such thing as science.

There would only be a kind of pseudotechnical activity so mean, so uninspiring, so devoid of roots that it would be unworthy of your allegiance and could not even long survive.

It is the essence of my thesis that there is a deep and important paradox at the root of the scientific effort which every real scientist feels instinctively but which has been made far too little known publicly.

The control and the fashioning of the tools of power are powerful pragmatic attributes of science in our immediate world today. But they are not the reasons for the deep intellectual ferment from which modern science was born in seventeenthcentury Europe, or by which it lives today.

It was not for considerations of practicality or power that Kepler remained absorbed for so many years in those studies of conic sections which fascinated him deeply and in which he excelled all his contemporaries, but which no contemporary would have

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## Books of the Week

For the editorial information of our readers, books received for review since last week's issue are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N.W., Washington 6, D. C. Request free publications direct from publisher, not from Science Service.

Building Health—Dorothea M. Williams-Lippincott, 2d ed., 431 p., illus., \$3.20. junior high school text intended to enliven the interest of students by providing interesting things for them to do.

DICTIONARY OF ARTS AND CRAFTS—John L. Stoutenburgh, Jr.—Philosophical Library, 259 p., \$6.00. Defining new and old terms, materials and techniques.

EDUCATORS GUIDE TO FREE TAPES, SCRIPTS, AND TRANSCRIPTIONS—Walter A. Wittich and Gertie L. Hanson, Eds.—Educators Progress Service, 2d ed., 161 p., paper, \$5.75. A reference book for educators.

ELECTRONS, WAVES AND MESSAGES-John R. Pierce—Hanover House, 318 p., illus., \$5.00. To help you understand the world of radar, television and other electronic gadgets.

ELEMENTARY THEORY OF NUCLEAR SHELL STRUCTURE—Maria Goeppert Mayer and J. Hans D. Jensen—Wiley, 269 p., illus., \$7.75. The state of nuclear physics today, the authors comment, is somewhat analogous to that of the concepts of the structure of matter before quantum mechanics.

Enjoying Health-Evelyn G. Jones-Lippincott, 2d ed., 434 p., illus., \$3.40. A senior high school text based on findings of the Denver study on health interests of children, such as how to promote attractive appearance and physical fitness.

GRADUATE EDUCATION FOR WOMEN: The Radcliffe Ph.D.-Faculty-Trustee Committee-Harvard University Press, 135 p., illus., \$3.50. This book, centered on those with a doctor's degree from Radcliffe College, attempts to answer two questions: what service to society may be expected of women with a Ph.D. and how graduate education can most effectively increase the value of that service.

GUIDED MISSILES IN WAR AND PEACE—Nels A. Parson, Jr.—Harvard University Press, 161 p., illus., \$3.50. For military men and those who wish to keep abreast of our fast-moving world.

How Time Is Measured—Peter Hood—Oxford University Press, 64 p., illus., \$2.75. A history of timekeeping, from the early water

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clocks and sandglasses to the voice that gives you the correct time over the telephone.

How to Make a Miniature Zoo-Vinson Brown—Little Brown, 212 p., illus., \$2.75. Telling just what you need to know in order to keep small wild creatures in your home or backyard.

LANGUAGE, THOUGHT AND REALITY: Selected writings—Benjamin Lee Whorf, edited and with an introduction by John B. Carroll, foreword by Stuart Chase—Technology Press of MIT and Wiley, 278 p., illus., \$7.00. Including nearly all of the author's writings on the hypothesis that the structure of language influences thought processes and our perception of the world about

A MODERN INTRODUCTION TO MATHEMATICS-John E. Freund-Prentice-Hall, 543 p., illus., \$8.00. A college text with emphasis on basic concepts and ideas and the abstract nature of mathematics.

More Please—American Dietetic Association, 6 p., illus., paper, 3 cents. What children should eat and what they will enjoy eating.

PRESENT KNOWLEDGE IN NUTRITION: Prepared from articles published in the journal, "Nutrition Reviews"—Editorial Staff and Advisory Board-Nutrition Foundation, 2d ed., 130 p., paper, \$2.00. Here you can find the latest information about vitamins, calories, minerals, proteins and other dietary essentials.

A QUEST INTO THE ENVIRONMENTAL CAUSES OF CANCER OF THE LUNG—W. C. Hueper—Govt. Printing Office, U. S. Public Health Service, Public Health Monograph No. 36, 54 p., illus., paper, 45 cents. Showing the relation between various chemicals, including such air pollutants as soot, petroleum oils, gasoline and diesel engine exhaust, and lung cancer, but indicating that the evidence is insufficient to blame smoking,

THE UNITED STATES PATENT SYSTEM: Legal and Economic Conflicts in American Patent History — Floyd L. Vaughan — University of Oklahoma Press, 355 p., \$8.50. The judicial concept of patentability differs from that of the Patent Office, the author indicates, to such an extent that a high proportion of the adjudicated patents are held invalid.

Science News Letter, March 10, 1956

