work has identified the toxic material and shown it to be identical to the poison of the Japanese puffer fish, tetrodotoxin, a neurotoxin that is also a useful tool for the study of conduction in nerve fibers.

Embryological work on newts in the laboratory led to questions about species and to experiments on cross fertilization in vitro. It was not initially possible to raise the hybrids to maturity in the laboratory, so it was decided to let nature do the job. A "newt ranch" was opened near Pepperwood Creek in Sonoma County, California, and in this admirable setting it has been possible to study the homing behavior, longevity, and breeding habits of the newts. The first mature hybrid was not caught for six years, and, perhaps justifiably, the student who found it was "insufferable for days."

The book includes descriptions of social interludes such as one in a Berlin night spot where "well endowed young women in their full epidermal glory" were observed. The whole book is written in an entertaining manner, and at the same time the author's research is well set out, with conclusions clearly summarized at the end of each section. There is a bibliography of over 100 references.

Of Scientists and Salamanders reminds us that science should be enjoyable. As "big" science and the "monkeys and typewriters" approach to research become more prevalent, the potential pleasures of a more personal approach tend to be forgotten. I would therefore especially recommend the book to young people contemplating careers in science in the hope that they may learn to expect fun from their work.

[As this goes to press, word has been received of Dr. Twitty's death.]

P. J. BENTLEY
Department of Physiology and Pharmacology, Duke University, Durham, North Carolina

Autobiography of a Mexican Physiologist

Desde un Alto en el Camino. Visión y Examen Retrospectivos. J. JOAQUÍN IZQUIERDO. Ediciones Ciencia, Mexcio, D.F., 1966. 542 pp., illus. $10.

José Joaquín Izquierdo, now emeritus professor of physiology at the great national university of Mexico, has, in spite of political and other obstacles, been instrumental in establishing a high standard for physiology and biomedical science in Mexico, and indeed has influenced the development of these sciences throughout Latin America. With his wide international friendship among physiologists and scientific leaders, he presents, in his richly illustrated and documented autobiography, an admirable picture of the development of the life sciences not only in his own country but throughout the world.

Izquierdo was born in 1893 of a distinguished family in Puebla. It is astonishing that he describes in detail the 93 texts which comprised his collegiate training there. This documentation well illustrates the relatively high quality of collegiate training in provincial Mexico at the time. Izquierdo received his medical training at Puebla and in Mexico City. Again, he gives a careful account of his training, and his illustration from the 80 required texts he used shows the breadth of his studies. Greatly moved by the ideals of the Mexican Revolution, Izquierdo determined to devote himself to the improvement of medical training in his country. He began his career with a report on studies of malaria in Puebla and, with an excellent library at his disposal, he cautiously began laboratory experimentation. In 1918 he undertook his first physiological demonstrations in Mexico City, finally, in 1923, winning approval from the Mexican National Academy of Medicine for conventional physiological investigation.

He came to the United States under the auspices of Richard Pearce of the Rockefeller Institute, studying there as well as at the Cornell Medical School, the University of Pennsylvania, the Johns Hopkins University, and Harvard. In 1925 he became an assistant to Walter B. Cannon, and this association influenced his entire subsequent career. From Harvard he went to England, where he worked with Joseph Barcroft and Lord Adrian. He became acquainted with all the leading British physiologists and through them met Pavlov, as well as the leading physiologists in Belgium, France, Germany, and Spain. The influence of Corneille Heymans was promptly reflected by Izquierdo's publication of several papers on carotid sinus reflexes.

On his return to Mexico he prepared, with the help of Walter Cannon, a laboratory course in physiology which gradually developed into an outstanding teaching program. He was active in promoting an appreciation of the importance of a scientific background for the health professions. Meanwhile, Izquierdo's historical interests were aroused, and he published a series of accounts of the early development of medicine in Mexico. In order to acquaint his students with the classics of physiology he translated Harvey's *De motu cordis* and published it together with an inspiring account of Harvey's career. He also issued an outstanding appreciation of Claude Bernard, whom he regarded as the founder of scientific medicine. During World War II, Izquierdo was increasingly visited by outstanding physiologists from all over the world. For the benefit of his students he gathered, at his own expense, a large, first-class library in physiology and in the history of philosophy and medicine. He adorned his laboratory with pictures and bronzes of medical greats. A patron of the arts, he has also written wisely and well on many of the artistic treasures associated with medical history.

It is clear that Izquierdo has really enjoyed his busy and brilliant career. His 18 books and dozens of technical papers testify to his intellectual leadership. He is, moreover, a delightfully friendly person. He has continually emphasized the high ideals of the health professions, and in his own career he has certainly pushed close to their attainment.

CHAUNCEY D. LEAKE
University of California School of Medicine, San Francisco

Mathematical Physics

The Analytic S-Matrix. R. J. EDEN, P. V. LANDSHOFF, D. I. OLIVE, and J. C. POLKINGHORNE. Cambridge University Press, New York, 1966. 295 pp., illus. $14.

For about the past dozen years, theoretical physicists concerned with high energy phenomena and elementary particle physics have been carrying on a torrid love affair with complex variable theory. It all began innocently enough when it was found that a generalization of the well-known classical