retical physicist have more in common with Archimedes and Aristarchus than with Robert Boyle?—a most thought-provoking proposition. Is physical science—in its more ethereal regions—becoming an art? This would bring it into line with the biological, geological, and medical sciences, which have never entirely lost all of their "art" characteristics.

All the interesting features of this book cannot be presented in a short review. The chapter on Science and Philosophy has a brief but delightful imaginary dialogue between a scientist and a philosopher. The 20th-century lag of philosophical interpretation behind scientific concepts is dealt with most skillfully. One is reminded of the adage that it takes twenty years to get a new idea into a textbook and another twenty to get it out again when obsolete.

As a trained historian, the reviewer finds the discussion of scientific objectivity in historical writing disappointing. History has to deal with documentary sources after a process of natural selection by time. It is well known that there are many gaps, particularly in intellectual history, and no amount of "scientific" investigation will return that which is known to have been destroyed. The matter of acquiring a *feel* for a period of time, such as the Restoration England of Newton's prime, is not so difficult to acquire as Lindsay suggests, and understanding a science in its own frame of reference may often be achieved better by those who are trained not to read modern meanings into ancient words.

The chapter on Science and Communication, which is the longest in the book, will be of greater interest to scientists than to nonscientists. That on Science and Technology is a neat little history of technology. Science and the State concerns the applications of science as they come under political control, as well as recent developments in governmental support of science in the United States. Science and Human Behavior touches upon a field still in its infancy.

This is an interesting and timely book. It should be required reading for all scientists, for those who would understand the deeper purposes of modern science, and for students of intellectual history.

Selected Problems in Physics with Answers. By M. P. Shaskol'skaya and I. A. El'tsin. Transl. from Russian by W. J. F. Reynolds. English Transl. Edited by F. Castle. 246 pp. (Pergamon, Oxford) Macmillan, New York, 1963. Paper, $3.75.
Reviewed by T. Teichmann, General Atomic Division, General Dynamics Corp., San Diego.

Elementary courses in physics (high-school and first-year college) are so often treated merely as the foundation for more sophisticated and complex things that the problems in such courses tend to be rather artificial. This need not be, for there are many phenomena in life, and for that matter in science, which are described fairly completely by the concepts of elementary physics, and whose study is both interesting and entertaining, and some times even educating!

The problems in this book are largely of this character. They have been chosen to cover the ground of what seems to be a Russian school-leaving exam in physics, though they include a number of topics which would only be covered by a beginning college course or by some judicious independent reading. They are not designed to be tricky or complicated, but they do call for the ability to see the concepts underlying the form. Almost all branches of physics are covered (except, obviously, quantum mechanics) and more than two thirds of the book consists of answers, often given in several ways. Both the format and the style are very readable. Since the cost is relatively modest, this book can be unhesitatingly recommended to both the neophyte and the expert.

Handbook of High Vacuum Engineering. By H. A. Steinherz. 358 pp. Reinhold, New York, 1963. $11.75.
Reviewed by Björn Bergsnov-Hansen, Stanford Research Institute, Menlo Park, California.

In the relatively new field of vacuum technology, pertinent information is widely distributed over the literature. A concise handbook would therefore be extremely welcome. Looking at the table of contents of Steinherz's book raises *big expectations;* however, examination of the text leaves one somewhat disappointed. In some chapters a wealth of information is given in the form of abstracts of papers published in the field. However, the book would have gained considerably if the author had attempted to evaluate the material and place the facts in focus. As it is, in large sections of the book the significant information is hidden in short and partly incomplete descriptions of experiments. Furthermore, detailed description of commercially available equipment is almost exclusively limited to that manufactured by the author's company.

The book would have benefited from more careful editing. The text contains imprecise expressions and concepts; in particular, some of the mathematical expressions and equations are confusing. For example, the letter d is used as both a differential symbol and diameter within the same paragraph; the letter l denotes both length and liter within the same equation; total differentials are given finite values.

In spite of these objections, the book may be considered a worthwhile addition to the bookshelf. Several useful tables and especially the extensive literature references (almost four hundred) make it a useful source of information.

Strange Particles. By Robert Kemp Adair and Earle Cabell Fowler. Vol. 15 of Tracts on Physics and Astronomy, edited by R. E. Marshak. 151 pp. Interscience, New York, 1963. $4.75.
Reviewed by Herman Feshbach, Massachusetts Institute of Technology.

It is unfair to this excellent volume and to its most able authors to start this review with a complaint on the current use of the word "strange". To be sure the properties of the K particles, and of the hyperons Λ, Σ, and Ξ were strange when they were first discovered, but there seems to be no reason to perpetuate this memory of our initial ignorance which after all is always present when a whole new range of phenomena comes into view.