teorite ages, with links toward cosmogony; of cometary orbits; of the physics and structure of comets and their parts, and their probable origin; of "ordinary" meteors as observed by optical and radio methods, the physics of their interaction with the terrestrial atmosphere, their origin and links with comets. Abundant plates, figures, and tables illustrate the text. Undoubtedly, the opinions of different experts on the same subject would not always agree, and there are many points which could have been given a different presentation. It is therefore gratifying to note the high percentage of the text which can be marked as commonly accepted by the leading authorities. At the same time, it contains material which is unusual and unorthodox, yet not in contradiction with the laws of nature.

The task of the editors was not easy, and slips are inevitable, especially in translations. As an example, on p. 216, in Krinov's article it is stated that the Tunguska meteorite could have been *overtaking the earth;* to be observable, in such a case this object should have passed right through the earth to emerge in Siberia at the moment of observation, and would then be moving in the wrong direction. In Krinov's original Russian text (*Meteoritika,* Moscow 1955; cf. p. 105) it is correctly said that the object could have been *overtaken by the earth.*

The volume is a fundamental contribution to our knowledge of the minor members of the solar system, of lasting value to serve as a handbook for years to come.

Précis d'Electromagnétisme théorique. By Paul Poincelot. 456 pp. Dunod, Paris, 1963. Paper 76 F.
Reviewed by Howard H. C. Chang, Stanford Research Institute.

In the preface of his celebrated opus, *Dictionary of the English Language,* the irascible Dr. Samuel Johnson noted with trepidation that "Every other author may aspire to praise; the lexicographer can only hope to escape reproach." This melancholy observation applies equally well to writers of handbooks and Baedekers. To escape censure the author must satisfy three stringent requirements: (a) the handbook must be accurate, exhaustive and modern. (b) The material must be imaginatively arranged and readily accessible. (c) The price must be reasonable. In all three scores, the present volume, which is best described as *A Handbook of Classical Electricity and Magnetism* (circa 1940), is woefully unsatisfactory and not worth the serious attention of engineers and physicists.

To be sure, the grave sins of this work are not sins of commission but sins of omission. The most damaging statement that can be made against it is that it could have been written in 1940 by Jeans. Thus the following important modern topics are not treated at all or treated very superficially: waves in anisotropic and inhomogeneous media, electromagnetic fluctuations, magnetohydrodynamics, radiation by moving charges, collisions between charged particles, energy loss, bremsstrahlung, method of virtual quanta, radiative beta processes, radiation damping, self-fields of a particle, scattering and radiation by bound systems, dispersion, obstacles in wave guides, variational methods for waveguide discontinuities, surface wave guides, artificial dielectrics, integral transform and function-theoretic techniques, and the powerful and elegant Green's-function techniques. It would, of course, be unreasonable to expect that he would treat all these topics in depth, but to omit them entirely opens this handbook to the serious charge of being obsolete. Instead, the author dissipates his energy on elementary and standard material found in such venerable classics as *Classical Electricity and Magnetism* by Abraham and Becker. Like most French works in electromagnetic theory, an inordinate amount of space is devoted to tensor calculus. Surely, such topics as tensor densities and Christoffel symbols should be eschewed in a book on electromagnetic theory.

Poincelot's references are principally to French books, which is well and good. Apparently he has not bothered to read the English books in this field except Stratton, which appeared in 1941! Thus, he makes no mention of the two fine books in EM theory in the Landau-Lifshitz series (*Physics Today,* Oct. 1961, p. 48), *Classical Electricity and Magnetism* by Panofsky and Phillips, *Classical Electrodynamics* by Jackson (*Physics Today,* Nov. 1962, p. 62), and *Field Theory of Guided Waves* by Collins (*Physics Today,* Sept. 1961, p. 50). If he has not read these fine books, he is guilty of an inexcusable laxity, and if he has, it is difficult to understand why he failed to cull material from them.

While it is a truism that "An author never finishes a book, he merely abandons it", the conscientious author will not abandon his book before he has prepared a detailed and useful index. The fact that this handbook has no index is enough to deter anybody considering its purchase from doing so.

Finally, $15.25 is an exorbitant price for this potboiler. The same material and much more is available in Jackson for $11.25 and in Panofsky and Phillips for $12.50.

The Natural Philosopher, Vol. 1. A Series of Volumes Containing Papers Devoted to the History of Physics and to the Influence of Physics on Human Thought and Affairs through the Ages. 155 pp. Blaisdell, New York, 1963. Cloth $2.95, paper $1.95.
Reviewed by L. Marton, National Bureau of Standards.

My curiosity was aroused when I saw a new publication entitled *The Natural Philosopher.* It is easy to cover a multitude of sins under that title, but it is less easy to do justice to a fine, old, and time-honored concept. I am happy to report that the attempt is reasonably successful.

The relatively slim volume purports to be first of a series and contains four articles. The first and longest part is by Robert E. Beardsley on "Radiation Control" and is, in my opinion, the weakest part of the volume. Although it is a well-documented and exhaustive treatment of its subject, it does not fit too well the announced purpose of the series ("a series of volumes containing papers devoted to the history of physics and to the influence of physics on human thought and affairs through the ages"), and it does not match too well with the remaining three contributions, which are fine illustrations of what can be done in "natural philosophy".

The second paper, by Martin J.