inal contributions to virtually every branch of classical physics. Although Rayleigh had placed his "finger on the open wound in theoretical physics," as Walther H. Nernst remarked after the Solvay conference of 1911, he remained to the end of his life content to work within the classical tradition, preferring to let the younger men explore the new leads of quantum mechanics, relativity and atomic models.

It is clear from this biography that Rayleigh possessed a deep sense of the importance of the mystery of nature and man's existence. His capacity for suspending judgment was unusual. He was easily impressed but very difficult to convince.

Historians of science and physicists alike will be grateful to Howard for making available this splendid edition of an important biography and source book.

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Advanced Electricity And Magnetism
By W. J. Duffin
300 pp. McGraw-Hill, New York, 1969. $9.00

There are times when it seems that what this world needs least is another book on electricity and magnetism, yet there always seems to be a new presentation, arrangement or approach that makes the new book a worthwhile addition. This new book by W. J. Duffin of the University of Hull, England, differs from so many others covering the same general field because it is truly aimed at the student who has already received a good grounding in electricity and magnetism, and is now in his second course.

The arrangement is also something of a departure from the customary text. The first chapter deals with steady electric fields and the second with steady magnetic fields. The third chapter discusses slowly varying currents, so that by chapter four it is possible to introduce Maxwell's equations. Thus the first unit or part of the book is completed, which Duffin calls "Basic Electromagnetism." It is really a neat and well done presentation in less than one hundred pages.

There are four more parts to the book, each consisting of two chapters. They are, in order: "Potential Problems," "Electromagnetic Waves in Matter," "Hardware," and "Field Theory." With what might be considered typical British frankness, Duffin calls linear-network problems and waveguides, cavities and aerials exactly what they are, "hardware." The section on field theory is one usually not found in such texts and it is well handled. It would appear that a course in electricity and magnetism can do with a discussion of this type and at this level.

This is much more than an introduction to electricity and magnetism, yet it is not suitable for graduate students, which the author makes perfectly clear when he calls it "an advanced book for undergraduates." But it is hard to place it in an undergraduate curriculum in an American college. Most courses in electricity and magnetism, after the initial physics sequence, are full year courses and justifiably so. It would be an excellent book for a one-semester four-hour per week course that followed a really strong four-semester introductory course in physics.

There are many good problems at the ends of the chapters, and the answers in the back are in many instances brief discussions of the important points in the solutions. This is typical of the quality of writing in the book throughout. There is also a good table of symbols in the front of the book and several fine appendixes touching on such topics as vectors and matrices.

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Cohérence Optique: Classique et Quantique
By J. F. Vinson
114 pp. Dunod, Paris, 1969
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The concept of coherence in optics has been discussed by physicists for a very long time but mostly from a classical point of view. In the usual classical treatments of interference phenomena, one treats either the case of complete coherence or total incoherence.

In the first case, the complete dependance upon phases is implied, but in the latter case complete independence of phases is assumed. In both cases, we discuss the superposition of