great compilation have been engaged in studying various aspects of the effects of smoking tobacco and of nicotine. This volume, which is so well organized and indexed, and which has such a comprehensive bibliography, will long remain a well appreciated record of their endeavor.

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Agronomists' Treatise

Tropical and Subtropical Agriculture. vol. 1 and vol. 2. J. J. Ochse, M. J. Soule, Jr., M. J. Dijkman, and C. Wehlburg. Macmillan, New York, 1961. liv + 1446 pp. Illus. $35.

These boxed, cloth-bound volumes, are printed in easily read type on good quality paper. The authors, from the University of Miami and the University of Florida, have prepared a treatise that will be useful to college students, farmers, technicians, and crop administrators.

The first 368 pages contain general information on climate, physiography, soils, cultural practices, diseases and pests, and the economic possibilities relative to crops. The rest of the book treats important crops such as bananas, citrus and other fruit crops, spices, beverages (coffee, cacao, tea), rubber and cinchona, oil crops, fiber crops, sugar cane, rice, maize, sorghum, and tobacco. There are 285 illustrations.

It is not an easy task to review the two volumes, and I obtained the cooperation of experienced agronomists and horticulturists at the Agricultural Experiment Station and at the College of Agriculture of the University of Puerto Rico as well as a few others. Their comments follow:

"The authors strive to cover a vast field in two volumes. The depth and extension of the discussion has therefore been sacrificed to the scope. This is in part remedied by the appended bibliography, although this implies additional search on the part of the reader.

"Commendable features are the glossary, and the author-subject-common plant indexes. Too much space has been sacrificed in listing the names of plants in various languages and dialects at the beginning of the discussion of each crop. Such information could have been assembled in small print in an appendix, and much needed space could have been saved for more useful information."

"Sea Island and Egyptian cotton are not the same. Sea Island *Gossypium barbadense* (L) Var. Maritima Watt., is perhaps the most valuable of all the different species.

"Egyptian cottons, as a class, are not so fine as Sea Island, but are superior to that of the American uplands for goods that require a smooth finish. In general, the data are accurate, but there is not enough information. As to the best fiber crop, the book is all right in a general way, but it lacks information on important fibers like flax and linen. The information about soybeans and sesame is accurate, although brief."

"*Bixa orellana*, commonly known as achiote or annatto, is an important plant in the tropics. Its seeds are used for coloring in food, cosmetics, and other items. In Puerto Rico alone, $200,000 of achiote seeds are imported annually from the Dominican Republic, Mexico, and other producers. No mention of this plant is found in the book.

"The statement concerning the quality of fruits obtained from six different forms of trees of *Carica papaya* does not seem to be appropriate.

"The statements describing flower biology, breeding and selection, and so forth of *Coffee arabica* and other species should have been kept separate in order to make the views easier to understand."

"Tobacco. Flue-curing is not used in cigar-wrapper tobacco, but in bright cigarette tobacco. The method described in the rest of the paragraph, extending to page 1307 refers to flue-cured (bright) tobacco. Cigar-wrapper tobacco is wilt-fired (charcoal or Lp-gas) during the first four or five days to remove excessive moisture and obtain light brown colors. Thereafter, the cure is completed by air-curing in more or less the same way used in dark air-curing.

"On page 1308, first line. Tobacco is usually fermented in a warehouse, not in a barn."

"The rest of the section on tobacco is very interesting; the topic is very well dealt with, in a short concise exposition."

"Rubber. This is a good chapter, fairly detailed but disappointing; it lacks modern information about physiology of rubber formation."

"Oil crops. Good, but the dwarf-tall hybrids developed in Ceylon are neglected. Also, in view of the growing economic importance of coconut diseases, quite a bit more information on this could have been included."

"Sugar cane. A good chapter, but tensiometers and gypsum or nylon blocks are used in the commercial irrigated sugar fields in Hawaii for water control of the sugar cane plant."

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Showmanship

Physics for the Inquiring Mind. The methods, nature, and philosophy of physical science. Eric M. Rogers. Princeton University Press, Princeton, N.J., 1960. 778 pp. Illus. $8.50.

Eric Rogers's course in physics for nonscience students at Princeton University has been famous for many years: it is probably the best known and most deservedly popular course of its kind in the country. Now he has put it down in a very handsome book, for all to see and possibly attempt to emulate.

In general terms, the physics is sound, the plan of organization novel but well thought out, the presentation ingeniously varied, often toward the end that the student can acquire ideas with a real sense of participation in the development. There is much use of familiar analogies to sports and other activities. The illustrations reflect some of the author's great showmanship with demonstrations. There are literary allusions and occasionally historical references to "tie in" the physics. The style is breezy and informal, so that the reader is carried along through what would otherwise seem a frightening amount of print, although some may not feel comfortable with such conceits as "the neutrino . . . *he*," and the like.

The ingenuity which produces so many useful parallels and analogies is always in danger of attributing to the discoverer of a scientific idea the motivation desired for pedagogical purposes. For example, there is no evidence, so far as one can see from the original paper, that Maxwell introduced the displacement current for reasons of mathematical symmetry; indeed, his justification, when he got around to giving one, involved the familiar condenser paradox with the circuital form of Am-