fixed to plywood using the synthetic resin, Asplit, made by Farbwerke Hoechts (p. 63). [Because synthetics are attacked by solvents and have a low heat resistance, slate and asbestos cement have not proven to be popular.] Lead is still used at CIBA (Basel, Switzerland) but is being replaced by other materials (p. 64).

Those who plan science buildings in the United States should remember that all these aspects of laboratory planning have been the subject of considerable research in the United States.

HARRY F. LEWIS
Institute of Paper Chemistry, Appleton, Wisconsin

Solar Radio Astronomy

Detection of radio waves from the sun was much sought after by radio pioneers, and, for a while in 1931, Karl Jansky postulated that his newly discovered "Cosmic Static" was of solar origin. Later, radio amateurs reported intense hissing sounds at the time of sudden interruptions of their communications, and in 1942 a British radar network was jammed by bursts of solar noise. During 1942 and 1943 solar radio waves were systematically detected by G. C. Southworth with microwave equipment at the Bell Telephone Laboratories and in 1943 by Grote Reber, who had privately continued Jansky's original work on longer wavelengths.

The growth of radio astronomy immediately after World War II was explosive, and the results are scattered in many places. The book, **Solar Radio Astronomy** [Interscience (Wiley), New York, 1965. xii + 660 pp., $19.75] by Mukul R. Kundu, is a review and co-ordination of the solar aspect of an extensive literature. The first two chapters, "Introduction" and "Optical features of the active sun," are short and appropriate. "Propagation and Generation of Radio Waves in the Solar Atmosphere," a mathematical treatment of the properties of ionized gases, is the basis for discussing the observational material, and it precedes "Techniques of solar radio observations," which places special emphasis on various types of solar interferometers. Observations are then described and analyzed with reference to physical models of solar features. There is a chapter on the quiet sun radiation which arises from the undisturbed solar atmosphere, and another entitled "The slowly varying component," which is closely associated with the appearance of sunspots, while there are six chapters on various burst types that are associated with sudden releases of solar energy. The relationship of solar radio emisison to the important solar x-ray and particle emissions, a major factor in the space environment of the earth, are described in two chapters. The last four chapters are "The active region and the flare event as a whole," "The irregular structure of the outer corona," "Radar observations of the sun," and "Satellite observations of solar bursts."

The coverage of topics in 18 chapters is complete, and this is followed by an extensive list of references and a subject index. The treatment of the material is concise, with 352 illustrations carefully selected from a wide literature. The various classifications of the difficult type IV burst are well presented. The shortness of the last chapter, on satellite observations, is disappointing but, at this time, understandable. The discussion of solar radio astronomy proper is adequate and accounts for more than one half of the book (eight chapters).

The unique radio telescope constructed in the earth's surface at Arecibo, by Cornell University, appears on the dust cover, and recalls the association of the author, Mukul R. Kundu, with Cornell before returning to his native land to pursue radio astronomy at the Tata Institute, Bombay. Kundu graduated from the University of Calcutta in 1947 with a B.Sc., and in 1951 with an M.Sc. Initial solar studies were commenced in France under the direction of J. F. Denisse and J. L. Steinberg of the Observatory of Meudon. In 1957 the author obtained the Docteur ès Science degree from the University of Paris, and some time later was able to continue solar studies at the University of Michigan. It was there that a review of solar radio astronomy was undertaken and the subsequent report was well received. It is now published with little change as the book under review. Appropriately, publication occurs at the onset of a new cycle of solar activity when the need for a unified account of solar radio observations is great. The book is one of a kind and is highly recommended as a reference.

ARTHUR E. COVINGTON
Radio and Electrical Engineering Division, National Research Council, Ottawa, Canada

Community Health

The prime social goal of medicine is the application of the maximum of scientific knowledge for the benefit of each person in an efficient, easily available, and individualized manner. Optimal health is today, however, far more than the simple sum of the care given to individual patients. By definition, it includes specific attention to the problems created by man's life in complex communities.

The goals, methods, and potentialities of a comprehensive approach to community health must be better known by public and health professions. In no other way can informed decisions be made with respect to the many possible health goals open to an increasingly affluent local and world community.

In **Community Health: Its Needs and Resources** (Basic Books, New York, 1966. 264 pp., $4.95), J. D. Porterfield has attempted an overview of the important field of public and community health. He has assembled 20 lectures given by recognized authorities under the auspices of the Voice of America. The topics considered are the classical ones in public health—the control of communicable disease, maternal and child health, vital statistics, nutrition, and the like.

This assemblage of papers is a loose one, characterized by recitations of progress and accomplishments in a necessarily superficial manner. All of the essays are adequate for the purpose for which they were intended—the information of our world neighbors on the state of this field in the United States—but none of them are particularly sophisticated. All, by and large, eschew a confrontation with fundamental problems. There is virtually no emphasis on the developments in the social, behavioral, and ecological sciences which condition any approach to the definition and solution of community health problems. This is traditional public health, updated to be sure, but not designed to engage the thoughtful general reader or the professional worker.

Indeed, the problems that this book will encounter are finding an appropriate audience and making the transition from a series of radio talks to a coherent and stimulating book. For the student and the expert, as the editor himself notes, the book is too superficial. For the educated layman or the professional who works in the field