

gracious to emphasize such difficult passages rather than the challenging and stimulating features of the book, not the least of which are the many well-chosen and effectively used illustrations. It goes without saying that the Krumbein and Sloss text will be warmly welcomed both by students and by professional stratigraphers.

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The Origin of the Earth. W. M. Smart. New York: Cambridge Univ. Press, 1951. 239 pp. \$2.75.

This book should prove to be a much-needed antidote to Hoyle's *The Nature of the Universe*, and it is gratifying to find a scientist who is not ashamed to confess that to him "the Heavens are telling the Glory of God and the Wonder of His Works." The book is nontechnical and can be read without any difficulty by the intelligent layman. It found its origin in talks given to servicemen and other lay audiences during and immediately after the second world war.

The book suffers somewhat from this transition from the spoken to the written word, and insufficient attention has been paid to the fact that statements made in print should be much more carefully weighed than those made in lectures. The result is a rather unbalanced presentation that, although not containing any apparent inaccuracies, gives a large number of half-truths which in a popular book of this kind should be avoided at all cost. This makes it difficult to recommend the book for popular reading.

There are quite a number of points that should be commented upon, but I shall restrict myself to a few remarks concerning Chapter IX, which discusses various theories of the origin of the solar system. It is clear that Professor Smart tried to steer clear of controversial points, but in doing so he gives a partial and inadequate picture.

First of all, the author makes the all-too-common mistake of lumping the Kant and Laplace theories together. As a result, he states that von Weizsäcker's theory is based on Laplace's, whereas it is clearly a variant of Kant's theory. The picture of von Weizsäcker's theory is incorrect and seems to borrow from Whipple. (By the way, why mention Hoyle's theory and not Whipple's?) The essential ideas of the theory attributed to Gunn were expounded in 1941 by Lyttleton. It should also have been mentioned that Birke-land (1912) and Berlage (1927) considered electromagnetic forces long before Alfvén. Finally, Spitzer's objections to dualistic theories should have been mentioned, since they dispose rather decisively of all dualistic theories.

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Genetic Neurology: Problems of the Development, Growth, and Regeneration of the Nervous System and of its Functions. Conference sponsored by the International Union of Biological Sciences. Paul Weiss, Ed. Chicago: Univ. of Chicago Press, 1950. 239 pp. \$5.00.

This volume consists of a collection of essays written by the speakers at the International Conference on the Development, Growth, and Regeneration of the Nervous System held in Chicago in 1949. In the foreword and the first chapter P. Weiss, conference chairman, gives an account of the subjects discussed during the meetings, with his comments. The essays, which differ greatly in form, scope, and content, present:

A clear and concise review on the colloidal organization of the nerve fiber by F. O. Schmitt; a commentary to a motion picture (which can be rented or bought from the Wistar Institute) of neurons and neuroglia in tissue culture by W. H. Lewis; an account of the factors influencing the path of nerve growth and of the reciprocal influence of the lateral-line nerve fibers and organs in frog tadpoles by C. C. Speidel; an excellent review on certain aspects of nerve regeneration from a histological viewpoint—unfortunately, without any illustrations—by J. Boeke; an account of some factors influencing the size of nerve fibers and of the problem of internode length by J. Z. Young; an article on regeneration of peripheral nerves in man by S. Sunderland; a lucid and very stimulating article on differentiation of nerve cells and nerve centers by V. Hamburger and R. Levi-Montalcini; a discussion of limitations of the methods used in neuroembryology by J. Piatt; and a review of the results of spectroscopic studies on nerve cells of H. Hyden.

There is an excellent report on cytological and biochemical changes during maturation of nerve cells, and on the correlation of these changes with the onset of electrical activity, by L. B. Flexner; a stimulating review of certain aspects of neural growth and regeneration by R. W. Gerard; a discussion of neural growth, the development of behavior, and spinal cord regeneration by D. Hooker; a review of the development of reflex movements in mammals by W. F. Windle; an article attempting to resolve the present controversy regarding the development of integrative capacity of the nervous system in vertebrates by D. H. Barron; an article on neuronal specificity by R. W. Sperry; a discussion of neuron diversity by D. Bodian; and, finally, a report on the development of Mauthner's cell and one on regeneration in the central nervous systems of urodeles and reptiles by A. Stefanelli.

On the whole, the book provides highly stimulating material, although it is not always easy to read. A number of challenging problems are advanced which are likely to lead to fruitful controversies. The title of the volume, unfortunately, does not give a real indication of its actual content. As it is, the book may be missed by some who would appreciate the essays, and it may be disappointing to others who would expect an organized presentation of the entire subject.

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