4 (Academic Press, New York, 1958); and 6, C. Djerassi, *Optical Rotatory Dispersion: Applications to Organic Chemistry* (McGraw-Hill, New York, 1960)]. Nevertheless, because of its practical approach, the book does fill a need, particularly for research chemists. Perhaps, to be sure of securing a permanent niche for this series, the editors should, in the future, defer treating any topic recently reviewed elsewhere from a similar point of view, unless the new chapter is far superior to its predecessor or records special progress in the field.

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Plant Physiology. A treatise. vol. 2, *Plants in Relation to Water and Solutes*. F. C. Steward, Ed. Academic Press, New York, 1959. xvii + 758 pp. Illus. $22.

Progress in plant physiology is well documented by an annual review, a number of recent textbooks, several treatments of plant biochemistry, and a multivolume *Handbook*. The appearance of another projected, six-volume treatise marks the zeal of F. C. Steward, the editor, and invites comparison.

The time has surely passed for the exhaustive treatment of a subject by one man. But one man can try to inspire a small group to accomplish a unified treatment and, by exercising adequate diligence as an editor, hope to impart the scholarship that the subject merits. This first volume, volume 2 of the series, indicates that these hopes are realized.

The headings and authors of the seven chapters on the functioning of water in plants are: (i) "Cell membranes, their resistance to penetration and their capacity for transport," by R. Collander; (ii) "Water relations of cells," by T. A. Bennett-Clark; (iii) "The water relations to stomatal cells and the mechanisms of stomatal movement," by O. V. S. Heath; (iv) "Plants in relation to inorganic salts," by F. C. Steward and J. F. Sutcliffe; (v) "Translocation of organic solutes," by C. A. Swanson; (vi) "Translocation of inorganic solutes," by O. Biddulph; and (vii) "Transpiration and the water economy of plants," by P. J. Kramer. These chapters cover all aspects of the subject from the pertinent properties of the individual cell to the functioning of the organized plant.

Concepts about the behavior of water in plants have gradually developed during the last century and are fairly definite. These classical concepts are summarized in a descriptive way with adequate literature references to guide new students. Each chapter is thorough, and several are exciting for the depth of insight given into the development of concepts.

In criticism, mathematical treatments are studiedly avoided. This is surprising for a subject that is fundamentally mathematical in content. As a result, rates of processes are largely ignored; only one differential equation is used in the 758 pages. Free-energy relationships and other thermodynamic aspects are mentioned only in a minor vein. An air of mysticism sometimes enters; for example, "Thus the investigator must still stand, awed but challenged, by that built in capacity for growth . . . which exists in the fertilized egg and which, through the beautifully coordinated and balanced process of organic and inorganic nutrition maintains the internal composition of the environment. By the accumulation and diversification of substance in plants, one can describe their growth: It is equally true . . . that the driving force which permits . . . accumulation of salts from the very dilute external solutions and which distributes and stores them in selected regions of the plant body is incomprehensible without the ability to grow." What is food to one may be fierce poison to others.

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The Scientific Papers of Sir Geoffrey Ingram Taylor. vol. 2, *Meteorology, Oceanography and Turbulent Flow*. G. K. Batchelor, Ed. Cambridge University Press, New York, 1960. x + 515 pp. Illus. $14.50.

This second volume of Sir Geoffrey Taylor's *Scientific Papers* is the first of three volumes that will be devoted to Taylor's work on the mechanics of fluids. It contains 45 papers on meteorology, oceanography, and turbulent flow. The phenomenon of turbulence and its effects provides the main theme of this volume, but many geophysical investigations are also covered.

New Books

Biological and Medical Sciences

Braungart, Dale C., and Rita Buddeke. *An Introduction to Animal Biology*. Mosby, St. Louis, ed. 5, 1960. 416 pp. $6.25.

Christophers, S. Rickard. *Aedes Aegypti [L.]. The Yellow Fever Mosquito*. Its life history, bionomics and structure. Cambridge Univ. Press, New York, 1960. 751 pp. $14.50.

Falconer, D. S. *Introduction to Quantitative Genetics*. Ronald, New York, 1960. 374 pp. $6.

Jayle, Gaetan E., Albert G. Ourgaud, L. F. Baisinger, William J. Holmes. *Night Vision*. Thomas, Springfield, Ill., 1959 (translated from *La Vision Nocturne et Troubles*, Masson, Paris, 1950). 422 pp. $13.50. In an introduction to the English edition, Sir Stewart Duke-Elder writes "One of the most outstanding monographs which has appeared since the World War. . . . This monograph is much more than the usual review . . . provides a critical assessment and integrative judgment on a multitude of incompatible theories. . . ."

Zakhvatkin, A. A. *Fauna of the U.S.S.R. Arachnoidea*. vol. 6, No. 1, *Turoglyphoidea Acari*. Translated and edited by A. Ratcliffe and A. M. Hughes. American Inst. of Biological Sciences, Washington, D.C., 1959. 578 pp. $10.

Economics and the Social Sciences

Birket-Smith, Kaj. *The Eskimos*. Translation of 1959 rev. ed. by W. E. Calvert. Methuen, London; Humanities Press, New York, 1960. 277 pp.

de Huszar, George B., Ed. *The Intellectuals*. A controversial portrait. Free Press, Glencoe, Ill., 1960. 551 pp. $7.50.

Hognin, H. Ian. *Social Change*. Watts, London; Humanities Press, New York, 1960. 257 pp.

Katona, George. *The Powerful Consumer*. Psychological studies of the American economy. McGraw-Hill, New York, 1960. 285 pp. $6.50.

Lange, Charles H. *Cochiti*. A New Mexico pueblo, past and present. Univ. of Texas Press, Austin, 1960. 644 pp. $10.

Lennard, Henry L., and Arnold Bernstein. *The Anatomy of Psychotherapy*. Systems of communication and expectation. Columbia Univ. Press, New York, 1960. 229 pp. $6.

Spitz, René A. *A Genetic Field Theory of Ego Formation*. Its implication for pathology. International Universities Press, New York, 1959. 123 pp. $3.

Stein, Maurice R., Arthur J. Vidich, David Manning White. *Identity and Anxiety*. Survival of the person in mass society. Free Press, Glencoe, Ill., 1960. 658 pp. $7.50.

Wedel, Waldo R. *An Introduction to Kansas Archeology*. With "Description of the skeletal remains from Doniphan and Scott counties, Kansas" by T. D. Stewart. Smithsonian Institution, Washington 25, 1960 (order from Supt. of Documents, GPO, Washington 25). 740 pp. $3.