

There is a final chapter on the criteria of normality. It may be regretted that the author did not add a systematic presentation of psychotherapy, although therapeutic considerations are included in a number of the chapters on the mechanisms. The bibliography of 883 items is unusually complete and accurate, and includes brief commentaries on almost all of the references.

Most of the material in the introductory chapters is compatible with the trend of eclectic American psychology, based on physiological and experimental concepts and evidence. The chapters on the mechanisms are, as the Preface states, "frankly psychoanalytical" in point of view. In many instances the objective and psychoanalytic approaches have been blended harmoniously, but in others the reconciliation has not been accomplished successfully, with the result that contradictory statements sometimes occur in close proximity. For example, page 138 says: "Anxiety is learned. . . . Since anxiety is a response to the anticipation of danger, it must have been learned from the actual situation of danger. . . ." Page 140 states: "Anxiety puts in its first appearance at birth and is evidenced by the infant's first spasmodic efforts to catch its breath and to utter its first wail." Contradictions such as these are but the growing pains of an immature but vigorous area of investigation. In spite of them, the clinical and analytical material is of value as a storehouse of hypotheses that, in time, will be drawn into the structure of scientific psychology.

Symonds' book is a worthwhile contribution to progress in the merger of psychology and psychoanalysis.

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pH and plants: an introduction for beginners. James Small. New York: D. Van Nostrand, 1946. Pp. vii + 216. (Illustrated.) \$4.00.

Considering that "many biological reactions tend to vary as the logarithm of the hydrogen-ion concentration or activity," the author has assembled from "the literature, now immense . . . samples over a wide field to illustrate methods of approach and type of results." Abstracts or summaries of numerous research papers are more or less loosely grouped together in chapters on pH in relation to plant sap, cell walls, protoplast, plant enzymes, aquatic life, plant pathology, and succulents.

In a chapter on "Soil pH and Plants" selected species are assigned to a series of classes termed "acidiphilous, acid-tolerant, amphi-tolerant, mesophilous, alka-tolerant, and alkaliphilous." The distinction of presumed "phily" from tolerance is based, however, merely on slight numerical differences in reported pH ranges.

There is a bibliography of some 300 titles, on the whole well selected, although one misses the names of Åslander, whose studies of the antagonism of hydrogen by other ions are of considerable interest. No clear-cut logical treatment with concise conclusions or summaries of the results obtained in the various fields is given, but a 17-page index makes possible the location of many scattered items.

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Scientific Book Register

BEDINGTON, H. M. (Compiler.) *Some British books on agriculture, nutrition, forestry, and related sciences, 1939-1945.* (Imperial Agricultural Bureaux Joint Publication No. 11.) Penglais, Aberystwyth, Great Britain: Imperial Agricultural Bureaux, 1946. Pp. v + 37. 3s.

BRILLOUIN, LEON. *Wave propagation in periodic structures: electric filters and crystal lattices.* New York-London: McGraw-Hill, 1946. Pp. xii + 247. (Illustrated.) \$4.00.

ELLIOTT, STANLEY B. *The alkaline-earth and heavy-metal soaps.* New York: Reinhold, 1946. Pp. x + 342. (Illustrated.) \$7.50.

ENGLE, EARL T. (Ed.) *Proceedings: Conference on Diagnosis in Sterility.* Springfield, Ill.: Charles C. Thomas, 1946. Pp. xi + 237. (Illustrated.) \$5.00.

GILMORE, CHARLES W. *A new carnivorous dinosaur from the Lance formation of Montana.* (Smithsonian Miscellaneous Collections, Vol. 106, No. 13.) Washington, D. C.: Smithsonian Institution, 1946. Pp. 19. (Illustrated.)

HEWITT, RICHARD M., NEVLING, A. B., ECKMAN, JAMES R., and SMITH, M. KATHERINE. (Eds.) *Collected papers of the Mayo Clinic and the Mayo Foundation.* Philadelphia-London: W. B. Saunders, 1946. Pp. ix + 899. (Illustrated.) \$11.00.

LEITHAUSER, DANIEL J. *Early ambulation and related procedures in surgical management.* Springfield, Ill.: Charles C. Thomas, 1946. Pp. vi + 232. (Illustrated.) \$4.50.

OPENHEIMER, JAMES M. *New aspects of John and William Hunter.* New York: Henry Schuman, 1946. Pp. xviii + 188. \$6.00.

POLYAK, STEPHEN L., MCHUGH, GLADYS, and JUDD, DELBERT K. *The human ear in anatomical transparencies.* (Published under the auspices of Sonotone Corporation.) New York: T. H. McKenna, 1946. Pp. 136. (Illustrated.) \$10.50.

SKRODER, CARL E., and HELM, M. STANLEY. *Circuit analysis by laboratory methods.* New York: Prentice-Hall, 1946. Pp. xvi + 288. (Illustrated.) \$5.35.

WORRALL, R. L. *The outlook of science—modern materialism.* New York-Toronto-London: Staples Press, 1946. Pp. 187. 12/6d.

ZOETHOUT, WILLIAM D., and TUTTLE, W. W. *Textbook of physiology.* (9th ed.) St. Louis: C. V. Mosby, 1946. Pp. 723.

———. *Nucleonics.* Washington, D. C.: Progress Press, 1946. Pp. 38. (Illustrated.) \$1.00.

———. *What industry owes to chemical science—a symposium.* (1st Amer. ed., based on a scheme by Richard B. Pileher and Frank Butler-Jones, with 50 contributors.) Brooklyn, N. Y.: Chemical Publishing Co., 1946. Pp. viii + 372. \$5.00.