Book Reviews

Some Protozoan Diseases of Man and Animals: Anaplasmosis, Babesiosis, and Toxoplasmosis. Annals of the New York Academy of Science, vol. 64, art. 2, pp. 25–277. New York Academy of Science, New York, 1956.

This series of papers is the result of a conference on Some Protozoan Diseases of Man and Animals: Anaplasmosis, Babesiosis, and Toxoplasmosis, held by the Section of Biology of the New York Academy of Science, 17–18 Nov. 1955 and is published in book form by the academy.

In the first of the three parts of the book, present knowledge of anaplasmosis is summarized in four papers which deal, variously, with the clinical signs, diagnosis, transmission, prevention, and treatment of the disease. Among the diverse aspects of anaplasmosis discussed are, *in utero* transmission; the important role of the horsefly in transmission; the proposed eradication of the disease from the Hawaiian Islands with the use of the complement fixation test; and treatment with chlortetracycline and oxytetracycline.

The first paper of part II is a review and classification of the piroplasms of domestic animals, by Neitz. Two classificatory lists, one of the Piroplasmidea and another of the Leucosporidea, are given, as well as a series of tables which list the known arthropod vectors of the piroplasms. Babesiosis of domestic animals is reviewed by Malerbe, and cases in the dog are cited as representative of typical syndromes of all domestic animals affected with babesiosis.

In part III, toxoplasmosis, in man and animals, is discussed with respect to the propagation, morphology, and biology of the organism and the laboratory diagnosis and pathogenesis of the disease. The advantages and disadvantages of various methods of propagation, photomicrographs and detailed morphological descriptions, and the biology of Toxoplasma, are presented by Jacobs. Although the pathogenesis, discussed by Frenkel, deals mainly with the disease as it is seen in man and in experimental animals, the principles of the disease processes set forth are the same in the domestic animals, especially in the dog. Eyles mentions two groups of drugs—the sulfonamides and the 2,4′=diaminopyrimidines—which show promise in the treatment of toxoplasmosis. He points out, "Although possessing marked activity individually, perhaps the most outstanding characteristic of the sulfonamides and pyrimethamine is that they act together synergistically . . .," making therapeutic effects possible with lower doses of the drugs. Extensive bibliographies are listed by Frenkel and by Eyles.

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Handbuch der Physik. vol. XV, *Low Temperature Physics II.* S. Flügge, Ed. Springer, Berlin, 1956. 477 pp. Illus.

This volume, the second of two devoted to the subject of low temperature physics and comprising five sections in almost 500 pages, is a worthy companion to the first (volume XIV).

In the opening chapter, on "Low temperature magnetism," J. van den Handel has written a short review to serve as an introduction to more extensive individual treatments elsewhere in the *Handbuch.* It is mainly devoted to the topics of energy levels, susceptibility, and antiferromagnetism, with additional brief remarks on resonance and relaxation phenomena and the Faraday effect.

There follows a discussion of "Adiabatic demagnetization," by D. de Klerk, which covers in detail all aspects, pure and applied, of the subject. One defect of this chapter is the fact that the author has striven to summarize practically every investigation ever reported rather than exercise critical selection. For example, the inherent inaccuracy in absolute temperature determinations below 1°K is rather lost sight of in a plethora of tabulations for many substances, some significant but others less so. It is interesting to learn that the latest (and as yet unpublished) data remove long-standing discrepancies between temperature determinations using gamma-ray heating and those using alternating-current absorption heating and resolve the argument in favor of the former. This automatically raises the question of the validity of all determinations which have employed the alternating-current method, but this point is not discussed. These observations aside, the fact that the whole field of magnetic cooling, including application of the method to diverse investigations at very low temperatures, is so well covered (up to the end of 1954) makes this contribution a reference work of great value.

"Superconductivity" is dealt with in two chapters, one by B. Serin, which concentrates on experimental results, and another by J. Bardeen, which is devoted to theory. The former is very readable but a little uneven in emphasis, since half of the article is devoted to general properties, and the rest, to the specific topics of penetration depth, interphase surface energy, and thermal effects, with a few remarks about alloys and compounds. Bardeen describes in considerable detail the developments due, variously, to F. and H. London, Fröhlich, Pippard, Ginsburg, and Landau, and to himself. He deals with them under three headings: London theory and generalization, boundary effects and the intermediate state, and electron-phonon interactions. He ably demonstrates the large effort that has gone into the approach to an understanding of the superconducting state, while emphasizing the considerable distance that yet remains to be traveled. (One hopes that current rumors of a significant advance will presently be borne out by fact.)

In the final section, K. Mendelssohn discusses "Liquid helium." After an eloquent and at times philosophic introduction, the author deals authoritatively with the various thermal, mechanical, and rheological phases of the subject and with the "special" behavior of helium-3.

When viewing the volume as a whole, one can be enthusiastic, and grateful for its appearance. Perhaps other reviewers will find specific criticisms in the area of their special competence, but I am forced to believe that these will be minor ones.

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Youth in a Soundless World. A search for personality. Edna S. Levine. New York University Press, New York, 1956. 217 pp. $5.

This book is about the deaf. It discusses in the introductory sections the general problem of the effects of deafness on adjustment, as well as psychological studies on the deaf. The major portion of the book is devoted to an experiment on deaf adolescent girls.

The experiment reported in the book consisted of the administration of the Wechsler-Bellevue scale, form 1, and the Rorschach test to 31 girls at the