

real and assumed mistakes duly included! Mendel was able to recognize and acknowledge results that did not fit his theory when he accepted Nägeli's advice to use the hawkweeds, *Hieracium*, instead of peas for his experiments. The advice was disastrous, because neither Nägeli nor Mendel knew the fact, discovered half a century later, that the hawkweeds frequently produce seeds by parthenogenesis (apogamy) rather than by sexual crossing.

A fine collection of original papers of the pioneers of Mendelism in the early years following the rediscovery (de Vries, Correns, Tschermak, Bateson, Castle, Cuenot, Garrod, Boveri, Wilson, Sutton, Cannon, McClung) are found, in the original languages and with the original pagination indicated, in the Krizenecky-Nemec volume. Critical discussions of these formative years are given in the introductory part of the Sosna volume and in Dunn's book.

In his book, Dunn, approaching more recent history, of course uses a broader canvas: part 3 of the book is entitled *The Theory of the Gene: 1910-1939*, and among its chapters are: *Genetics in 1939—Mileposts of Progress*, *The Cytological Basis of the Chromosome Theory*, *Cytogenetical Analysis*, *The Experimental Study of Mutation*, *The Physiology of the Gene*, *Development and Genetics*, *The Rise of Population Genetics*, and *Concluding Reflections*. Taking 1939 as a cutoff point is admittedly arbitrary but, as Dunn writes, "by this time the theory of the gene had taken on a more general character. The gene had become an essential term in describing continuity, function, evolution. This expansion in the range of phenomena encompassed by the idea, much greater than could have been foreseen in 1900, had been accomplished by about 1939 without losing the fundamental unity implicit in the original concept of the gene." Nevertheless, Dunn adds a short Postlude: *Old and New in Genetics*, which sounds almost like a preface to what a historian of genetics might write some decades hence.

The two Mendel memorial symposia contain a great variety of articles, ranging from historical essays to critical reviews of certain problems to descriptions of original research. Only some of the highlights can be mentioned, in full realization that their selection is an arbitrary procedure. In Sosna's volume, Dubinin discusses

Some Cardinal Problems of the Contemporary Theory of Mutations, and there are papers by F. Jacob on *Génétique Cellulaire chez les Bactéries*, C. H. Waddington on Mendel and Evolution, I. M. Lerner on Mendelism and Animal Breeding, and C. Stern on Mendel and Human Genetics. In the Brink-Styles volume one finds *Genes and Gene Complexes*, by E. B. Lewis, *Properties of Genes*, by M. Demerec, *An Experimental Analysis of the Genetic Code*, by Matthaei and co-workers, *The Operon*, by Buttin, Jacob, and Monod, *Gene Action at the Level of the Chromosome*, by W. Beermann, *Human Populations*, by L. L. Cavalli-Sforza, *The Evolutionary Integration of the Genetic Material into Genetic Systems*, by T. M. Sonneborn, and, finally, H. J. Muller's valedictory address *The Gene Material as the Initiator and the Organizing Basis of Life*. Neither symposium, nor both together, can be said to give an inclusive overview of modern genetics; this is not intended as a criticism, since probably no symposium can be organized to accomplish that much. What the collection of books here reviewed does show is how some geneticists viewed the history and the state of their science a century after Mendel's discovery.

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## History of Physics

**Sources for History of Quantum Physics.** An Inventory and Report. THOMAS S. KUHN, JOHN L. HEILBRON, PAUL FORMAN, and LINI ALLEN. American Philosophical Society, Philadelphia, 1967. 190 pp. \$5.

This is an inventory of about 100 tapes of interviews with leading quantum theoreticians and of about 100 microfilms full of data and of biographical sketches littered with references. Copies of these sources are available in Philadelphia and in Berkeley. The rest is a brief technical report and a sample. The compilers honestly describe the shortcomings of their work and confess inability to assess its future usefulness. As is often the case with hastily collected material, selection will be the chief problem of future users.

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## Books Received

**Absorption Spectra in the Ultraviolet and Visible Region.** vol. 7. L. Lang, Ed. Academic Press, New York, 1967. 412 pp. Illus. \$23.

**Abstract Algebra.** Andrew O. Lindstrum, Jr. Holden-Day, San Francisco, 1967. 223 pp. \$9. Series in Mathematics.

**The Actinomycetes: A Summary of Current Knowledge.** Selman A. Waksman. Ronald, New York, 1967. 286 pp. Illus. \$12.

**The Admiralty Chart: British Naval Hydrography in the Nineteenth Century.** G. S. Ritchie. Elsevier, New York, 1967. 400 pp. Illus. \$15.

**Advances in Clinical Chemistry.** vol. 9. Harry Sobotka and C. P. Stewart, Eds. Academic Press, New York, 1967. 422 pp. Illus. \$16. Six papers.

**Alcoholism.** David J. Pittman, Ed. Harper and Row, New York, 1967. 286 pp. Paper, \$3.75. Readers in Social Problems Series. Seventeen papers.

**America's Natural Resources.** Charles H. Callison, Ed. Ronald, New York, ed. 2, 1967. 228 pp. \$5. Eleven papers.

**Analysis Instrumentation.** vol. 4. Proceedings of the Twelfth Annual Analysis Instrumentation Symposium (Houston, Tex.), May 1966. Lewis Fowler, Raymond G. Harmon, and David K. Roe, Eds. Plenum Press, New York, 1967. 246 pp. Illus. \$17.50. Twenty-five papers.

**Analysis of Engineering Cycles.** R. W. Haywood. Pergamon, New York, 1967. 292 pp. Illus. \$6.50. Commonwealth and International Library.

**The Analysis of Silicates.** I. A. Voinovitch, J. Debras-Guedon, and J. Louvrier. Translated from the French by R. Kondor. E. Seijffers, Translation Ed. Israel Program for Scientific Translations, Jerusalem; Davey, New York, 1967. 397 pp. Illus. \$24.

**Analytical Trigonometry.** Thomas J. Robinson. Harper and Row, New York, 1967. 198 pp. Illus. \$6.

**The Anatomy of Achievement Motivation.** Heinz Heckhausen. Translated from the German by Kay F. Butler, Robert C. Birney, and David C. McClelland. Academic Press, New York, 1967. 235 pp. \$5.95. Personality and Psychopathology Series.

**Annual Review of Medicine.** vol. 18. Arthur C. De Graff and William P. Cregger, Eds. Annual Reviews, Palo Alto, Calif., 1967. 567 pp. Illus. \$8.50.

**Another View of the City.** A chronicle of a heritage besieged. Russell Peterson. McGraw-Hill, New York, 1967. 236 pp. Illus. \$6.50.

**Applied Stress Analysis.** A. J. Durelli. Prentice-Hall, Englewood Cliffs, N.J., 1967. 196 pp. Illus. \$12. Civil Engineering and Engineering Mechanics Series.

**Astronomischer Jahresbericht.** vol. 65, *Die Literatur des Jahres 1965*. W. Lohmann, F. Henn, and U. Güntzel-Lingner, Eds. De Gruyter, Berlin, 1967. 760 pp. Paper, 80 DM.

**Autoimmunity: Clinical and Experimental.** J. R. Anderson, W. W. Buchanan, and R. B. Goudie. Thomas, Springfield, Ill., 1967. 501 pp. Illus. \$19.50.

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